HYSTERIA

AND

ACCIDENT COMPENSATION

NATURE OF HYSTERIA

AND

THE LESSON OF THE POST-LITIGATION RESULTS

By

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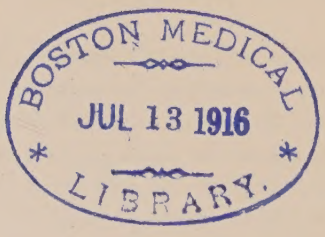

PREFACE.

In the within small volume, the writer has endeavored to present the subject of accident hysteria in as condensed and as readable a form as possible. Technicalities have therefore been avoided as far as the subject would permit, and in order to render the text clear to non-medical readers, a glossary of the terms used has been appended.

F. X. D.

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INTRODUCTION.

In modern times, many scientific truths which have a bearing upon the interest, the safety and the prosperity of the citizen and of the community as a whole, have become widely diffused. Thus, lay persons, though knowing little perhaps of the physics of electricity, have become well informed not only as to its usefulness and practical application but also as to its dangers. In like manner a knowledge of elementary truths pertaining to health and disease has gradually gained a foothold. Particularly is this true of the various infectious diseases. Here a knowledge of prevention, as in the case of typhoid fever and of the necessity of isolation, as in the instance of diphtheria or of scarlet fever, has already led to results of inestimable value. Infectious and contagious diseases have gradually come under increasing control, so much so that many of them have greatly diminished and, indeed, have almost disappeared. These results are due not only to the efforts of health boards and of physicians but also to the intelligent co-operation of the community; and the gain to the community in the saving of health and life and in the avoidance of the attendant financial loss, is incalculable. Just as the community has become educated in its responsibilities toward the infectious diseases—typhoid fever, small-pox, diphtheria, scarlet fever, tuberculosis, etc.—so has it gradually become edu-

cated in its responsibilities in another field, namely in that of the dependent classes. Little by little, the community has realized in an increasing degree its responsibilities to the insane, to the criminal, to the defective; and, in making provision for these claims, the community has necesarily based its action upon scientific conceptions of the general character of diseased and subnormal states, conceptions which have gradually been acquired from the medical profession. Scientific ideas, for instance, are guiding the community in its efforts to properly care for the insane; this is seen in the construction of suitable buildings, provision for modern hospital care, for retraining, for employment, for out of door life. All of these provisions are necessarily based upon scientific ideas largely medical in their nature. In another field also has the conscience of the community been awakened, namely, in that of the injured workman, and in many of the states of the Union provision is now being made by the enactment of special laws for his compensation. Here again it is to the medical profession that the community must necessarily look, and upon which it must necessarily depend; for it is the physician who must determine the character and the degree of the injury and, in given cases, decide the question of its permanence.

That the burden which the community has assumed in its care of the dependent classes is very large goes without saying and that it has assumed and is still assuming this burden in a spirit of increasing generosity is equally

true. There is, however, still another factor which is steadily adding to the weight to be borne, and, though its operation is quiet and unsuspected, it is surely and unerringly adding its quota. I refer to the indirect consequences of accident litigation, that is, of litigation the outcome of accidents in which injuries are claimed. That the results of such litigation are not confined to the immediate individuals or corporations concerned, a brief consideration will convince us. In every instance in which damages are awarded, these damages must necessarily be added to the cost of operating a plant, to the cost of conducting a business, i. e. to the cost of production, and it is therefore the consumer, i. e. the community, upon whom the burden eventually falls. This is just as true and inevitable as in the instance of the compensation paid to an injured workman. That every injured workman should, under equitable conditions, receive proper compensation goes without saying, and this, it must be conceded, is equally true of every person who suffers an injury involving legal liability. The fact that the community is in either instance the one who eventually bears the loss, the fact that every person injured is, for the time being or permanently, added to the already large number of the dependent classes, gives to the question a great economic importance; for it means that upon the shoulders of those able and willing to work there is being heaped an ever-increasing burden.

It becomes imperative that the community should in

this, as in other fields, become acquainted with certain basic scientific facts. The latter are in themselves exceedingly simple and are of such a nature as to be readily grasped without previous technical training. They should not be the exclusive property of medical men, but on the contrary should be brought home closely to the laity, our law-makers, attorneys, and judiciary.

PRELIMINARY CONSIDERATIONS.

Let us consider briefly the injuries which form the basis of compensation or indemnity, the nature of these injuries and the degree and duration of the impairment to which they give rise. It will be readily seen that they roughly separate themselves into two groups. In the first group are cases in which the injury is physical or surgical and in which both the nature and the degree of the injury is usually quite evident; as in the loss of a limb, a fracture, sprain or dislocation, or in physical injury of some special structure. In the second group are cases in which no physical injuries or physical injuries relatively slight and inconsequential are present, such as an abrasion, bruise or contusion, but in which there subsequently arise a train of symptoms nervous or mental in character. The first group of cases we may dismiss from our consideration, for the physical fact of injury can as a rule be readily determined, and, concerning it, physicians differ from each other, if at all, mainly as to the degree of the injury.

The cases of the second group, however, demand a detailed consideration. Our knowledge of them has been of gradual evolution. It was early recognized by surgeons that nervous symptoms not infrequently appeared in persons who had been in railway accidents, but in whom no obvious physical injury existed. Such cases were early

described as suffering from "railway spine." Erichsen who wrote upon this subject in 1866, 1875 and later, made use of the term "concussion of the spine." He defines this phrase as "adopted by surgeons to indicate a certain state of the spinal cord occasioned by external violence; a state that is independent of, and usually, but not necessarily, uncomplicated by any obvious lesion of the vertebral column, such as its fracture or dislocation,—a condition that is supposed to depend upon a shake or jar received by the cord, in consequence of which its intimate organic structure may be more or less deranged, and by which its functions are certainly greatly disturbed, so that various symptoms indicative of loss or modification of innervation are immediately or remotely induced.

"The primary effects of these concussions or commotions of the spinal cord are probably due to molecular changes in its structure. The secondary are mostly of an inflammatory character, or are dependent on retrogressive organic changes, such as softening, etc., consequent on interference with its nutrition." Erichsen looked upon the symptoms present in these cases as due to a chronic inflammation of the spinal marrow and its membranes, a meningomyelitis, and, secondarily, to an inflammation of the membranes at the base of the brain. Leyden and Erb, writing at about the same period, adopted similar views. Westphal assumed the existence of multiple foci of disease in the cord and brain. Rigler, a railway surgeon of Berlin, writing in 1879, adhered

closely to the pathological theories of Erichsen maintaining, however, that an anatomical lesion of the cord can only occur in collisions and only in such persons whose back is turned in the direction of the collision.

No evidence was forthcoming from actual observations of the existence of the lesions claimed; namely, inflammation of membranes or structural changes in the substance of the cord or brain. Owing to the fact that death did not take place—a fact the significance of which was not at the time realized—cases did not come to autopsy; so that an opportunity for verifying the supposed pathological changes did not occur. However, in two instances in which the patients died of intercurrent affections, one of aneurism and the other of acute alcoholism, and which did come to autopsy, a careful microscopical study of the brain and spinal marrow by the writer[1] failed to reveal any lesions whatever (1895). Moeli had in 1887 already recognized the fact that the symptoms presented were mental in their nature and he laid stress upon fright, fear and excitement as causative factors. The psychic or hysteric nature of the symptoms was also pointed out by Wilks, Walton and Putnam. Thomsen and Oppenheim, while making similar studies, did not accede altogether to the hysteric interpretation of the symptoms, but made reservations as to a partial existence of organic lesions. It remained for Charcot to show that these cases have no anatomical basis whatever and that they are entirely functional in nature. Charcot maintained that the symp-

toms presented by the patients are exactly the same as can be produced by a hypnotic suggestion, and this naturally directed attention to the role played by fright, fear and anxiety. Indeed Charcot declared the symptoms to be the result of autosuggestion, and further that the symptoms described by Oppenheim, Thomsen, the American and other observers, were all due to hysteria and nothing but hysteria. Oppenheim subsequently admitted the purely functional nature of the symptoms though he regarded the clinical picture as differing from ordinary hysteria in the uniform mental depression present. Charcot on the other hand pointed out that just this mental state is typical in male hysteria.

Page writing in England, in 1883, upon injuries of the brain and spinal cord and, later, on railway injuries, 1891, clearly recognized the non-organic, non-structural character of the cases under discussion and pointed out the importance and significance of psychic factors in the production of the symptoms. Oppenheim to whom credit almost equal to that of Charcot is due, presented the subject in 1889 so clearly and in so convincing a manner that the fundamental fact of the functional character of the cases in question has steadily won acceptance by the medical profession. It is a significant fact that the terms "spinal concussion" and "railway spine" once the vogue in Great Britain, widely accepted on the continent of Europe and in universal use in this country, have disappeared from our courts for almost thirty years. Oppen-

heim substituted for these terms the expression "traumatic neurosis." Unfortunately the word neurosis, vague and indefinite in meaning, failed utterly to convey any conception as to the nature of the condition present. Notwithstanding the expression "traumatic neurosis" rapidly became the vogue and was adopted by physicians in their testimony before the courts the world over. Soon, however, the hysterical nature of the symptoms became more and more evident and the expression "traumatic hysteria" came to be used. For a long time the profession were inclined to hedge, with Oppenheim, as to the purely hysterical character of the symptoms and such terms as "traumatic neurasthenia" and hybrid expressions as "traumatic hystero-neurasthenia" came to be employed but they finally definitely gave way with our increasing knowledge to the name "traumatic hysteria" and thus medical men gradually came to adopt a position which one of them, Charcot had anticipated for more than a quarter of a century.

THE NATURE OF HYSTERIA.

Evidently it becomes important to study hysteria and to acquire correct ideas as to its nature. What is hysteria? Many lay persons have met with it, have seen its manifestations, have seen an attack of hysterical crying, or have seen some one—most commonly a woman—in a hysterical attack. Persons witnessing such an attack are usually greatly impressed by the fact that the patient,

screaming, struggling and convulsed, soon comes to herself, re-arranges her dishevelled clothing, moves and walks about, and shows by her actions and conversation that she knew everything that was going on during the attack. Naturally the bystander forms the conclusion that, despite the noise and excitement, there was "nothing the matter after all." Let us see how much of truth there is in this conclusion.

The ancients thought that during a hysterical attack the womb or uterus becomes detached from its moorings and goes wandering about the body seeking sexual satisfaction. This theory which finds expression in the writings of Hippocrates, Celsus and Galen, has served to fasten the name hysteria, derived from ὑστέρα, (*hystera*), the Greek word for womb, upon the affection. Although the primitive theory of the wandering uterus has been abandoned since the days of Galen, ideas as to the sexual origin of hysteria have persisted, though of course in modified forms, up to our own day. Unsatisfied passion, repressed sexual desire, unrequited love, genital irritation and, lastly, repressed memories of sexual transgressions and peccadilloes in childhood—advocated by the so-called psychoanalytic school—have in turn served to befog the subject, to surround it with a veil of mystery and to lend it a prurient interest. However, from the days of Sydenham to those of Charcot, it became increasingly evident that the symptoms of hysteria were nervous or mental in origin, and, further, that they bear no relation to the

sexual organs. Thus, operations upon the sexual organs of women, such as the removal of the ovaries or uterus leave the hysteria uninfluenced; and, it has been known for a long time also that hysteria occurs in men as well as in women.

The truth in regard to the symptoms of hysteria was arrived at by their clinical study; and here Charcot and his pupils, among whom must be especially mentioned Giles de la Tourette and later Babinski, led the way. This truth is well illustrated by the following facts. A symptom frequently noted in persons presenting hysteria is a loss of feeling or sensation—a so-called anæsthesia—in a limb or in some portion of the body. Quite commonly the loss of sensation embraces an area covering a hand and part of an arm like a glove, or a foot and a leg like a sock or stocking. Now, we have learned from our knowledge of anatomy, that a lesion or break in any of the nerves supplying the limbs could not by any possibility give rise to a loss of feeling involving such an area. Such a sensory loss is totally at variance with the anatomical facts of nerve distribution and supply. A lesion of the ulnar nerve of the forearm for instance, would give rise to a loss of sensation involving the little finger and the outer half of the ring finger and of corresponding areas of the hand and forearm. Similar definite facts obtain in regard to lesions of the other nerves of the arm, and in addition, there are associated facts of palsy and wasting of special muscles and gross disturbances of nu-

trition which make each picture of actual organic nerve lesion characteristic; not by any possibility, let me repeat, could a glove-like or stocking-like loss of sensation be brought about. Further, the same is true of lesions of the spinal cord. Losses of sensation in a limb due to a lesion of the spinal cord assume the direction of stripes running up and down the length of the limb, each stripe, so to speak, being definitely related to certain levels of the cord. Therefore, a glove-like loss of sensation in a hand or arm cannot be due to any lesion or disturbance of the spinal cord. If we attempt to correlate a glove-like anæthesia with a lesion of the brain, we find ourselves equally at fault. A lesion of the tract of fibres which conveys sensory impressions to the cortex of the brain gives rise to a loss of sensation involving one half of the body and the arm and leg of the same side; never to a glove-like sensory loss. The same is true when the lesion involves portions of the surface of the brain; in such case the person may, with sensation well preserved, be unable in given instances to recognize by touch familiar objects; but never is there present a glove-like sensory loss. Only one inference from the facts is possible, and that is, that a glove-like sensory loss is mental, not physical. The same fact is true of all the other phenomena presented by hysteria; all are equally mental in origin.

The next step in the interpretation of the symptoms was the recognition of the fact that they owe their origin to suggestion. Though this was known to Charcot, it is

due to Babinski that the fact of the origin of symptoms in suggestion has been especially emphasized. To show the role of suggestion Babinski's experience in regard to sensory losses is exceedingly interesting and instructive. In many cases of hysteria, a loss of sensation covering one-half of the body with its arm and leg, a hemianæsthesia, is noted. Babinski in testing one hundred consecutive cases of hysteria, not previously examined by physicians, for hemianæsthesia, and, being careful to avoid making any suggestion, failed to elicit the symptom in a single case. Again, the hemianæsthesia is usually found upon the left half of the body. Babinski points out that the physician being usually right-handed, has the camel's hair brush, pin or other instrument in his right hand and, facing his patient, naturally tests the left side of the patient first, thus suggesting the very hemianæsthesia he is trying to discover. Quite commonly the examination is accompanied by the question "Do you feel this?" a question which naturally suggests to the patient that the doctor has a doubt upon the subject, is expecting the patient not to feel the pin point, and soon the answer comes, "No, I do not feel it"; or "I hardly feel it at all."

Another point now becomes evident upon further investigation. If the physician test a healthy or normal individual for hemianæsthesia making at the same time free use of suggestion both direct and indirect, he invariably fails to develop the symptom. In other words,

the fact whether a hemianæsthesia is or is not developed depends upon the previous existence of hysteria in the individual. The normal individual repels, the hysterical individual accepts the suggestion. It is this vulnerability to suggestion which constitutes hysteria.

Again, when we analyze the symptoms of the sensory loss, e. g. a hemianæsthesia developed in a given case, we find, as a rule, that sensation is not entirely lost. The patient does feel but says that he does not feel as well as upon the opposite side of the body; in other words the symptom developed is that merely of a diminished sensation, a condition which has received the name of hypo-æsthesia or hypæsthesia. When the test is being made, the question of itself—for the test is a question even when the physician does not ask it in words—arouses first a doubt in the person's mind, followed immediately by a realization that the symptom is expected to be present, and, finally, that it is present. The mental phases are in rapid succession; "Do I feel it?" "No, I don't feel it as well as on the other side." "No, I don't feel it." In keeping with this fact, a sensory loss mild at first—a hypæsthesia—frequently passes into a sensory loss that is pronounced—an anæsthesia. Especially is this apt to ensue in a much examined case.

Further, that the sensory loss is not really existent, is proved by a number of facts. Quite frequently during an examination, as we shall see, painful superficial areas are developed over various portions of the patient's body;

for instance, beneath the breast, over the groin and elsewhere over the trunk or limbs. It is an astonishing fact that commonly after a hemianæsthesia has made its appearance, painful areas can be developed on the very side in which loss of sensation has just supposedly been demonstrated! Again, the unreal character of the loss is shown in the fact that it may vary in its distribution and in its degree; indeed it may be shifting and quite inconstant; it may come and go. It is not surprising that under such circumstances an unexpected prick with a pin or contact with an electrode may cause the patient to give vent to an exclamation or cry, make a sudden gesture or reveal by some other sign that the impression was felt. Finally, as a matter of scientific interest, it may be added, that if the patient be hypnotized it can be readily demonstrated that he does feel in the supposed anæsthetic area.

I can myself abundantly confirm the statement of Babinski that when suggestion is avoided, loss of sensation is not observed; i. e. provided the patient has not been previously the subject of medical study. In testing for sensation I never direct the patient's attention to this function. When I examine a limb, for instance, I do so with the apparent intention of examining the condition of the muscles or joints. As I begin, I say to the patient with some apology of manner "My hands are not cold, are they?" The patient answers "yes" or "no," may timidly permit the manipulation of the limb, may flinch if undue pressure or a little vigor is used, may declare

that this or that hurts her, but the idea of the limb being dead to feeling, never occurs to her. Indeed, if care be not exercised the opposite idea may be bred in the patient's mind, namely, that the limb is tender and painful. If, on the other hand, the answers and comments of the patient are such as to point to an actual sensory loss, the truth can easily be demonstrated by an unexpected pin-prick made by stealth, and, if real organic loss be shown to be present, the symptom may then be elaborately studied by means of instruments of precision, æsthesiometers, camel's hair brushes, cotton-wool, cold and hot test tubes and the like, but in no case, especially if hysteria be deemed a possibility,—and it always is a possibility,—should instruments or appliances of any kind be used in the beginning. The obvious suggestion resulting from their employment makes them inadmissible.

That which is true of the development of the symptom of sensory loss by suggestion, is equally true of all of the other symptoms of hysteria, whether these consist of palsies, of symptoms referable to the various organs or to the general conduct or attitude of the patient. The origin and mechanism of a suggestion is not always so easy to trace as in the development of an anæsthesia. Frequently, too, the suggestion is indirect in action and entirely unexpected. This is well illustrated by the following case. Some years ago Professor Raymond of Paris presented at the Neurological Society of that city, a young woman suffering from a hysterical hemiplegia

with contractures. The history of the case was that the patient and her husband, recently married, had spent their honeymoon at the sea-shore, and it so happened that in their daily walks they met an old man suffering from hemiplegia. No comment was made by the young woman, but some time after returning to her home, she began to walk as did the old man, while her limbs also assumed the position of fixation and contracture. Obviously such a result could only have occurred in a person in whom hysteria had pre-existed. In like manner one hysterical patient may excite similar symptoms in another. The imitation may have the appearance of being purposive and voluntary though in reality having its origin in suggestion.

In addition to the vulnerability to suggestion, the hysterical subject presents in his mental makeup certain other features in keeping with this feebleness of resistance. Thus, just as impressions suggestive of various symptoms are followed by an undue reaction, so does the patient present an excessive, a pathological reaction to emotional stimuli. That the hysterical patient laughs and cries more readily than do other persons is a fact of common experience. Emotional instability and exaggerated emotional expression are symptoms of every day observation. Similarly the hysterical person is more readily frightened than is the normal person. Again, the fright may be out of all proportion to its cause. Very frequently the latter is trivial; so much so, at times, as

to be practically non-existent. Finally, the outward manifestations of the fright may be, and commonly are, greatly in excess of the actual emotion experienced. This inference is justified by the not infrequent subsequent conduct of the patient, which is such as to suggest the layman's conclusion, after witnessing a hysterical fit—already spoken of—namely, that "there wasn't very much the matter, after all." Other causes than fright may of course lead to excessive emotional reactions in hysterical subjects. Such causes may be found in joy, grief, shame, the emotional shock of sexual experiences, the worry over sexual peccadilloes and like matters.

Before proceeding farther in our study of hysteria, it may be well to emphasize the three facts which the consideration of the subject has thus far revealed. First, hysteria is an affection which is innate in the individual; the hysterical woman or hysterical man is born not made. Secondly, the special symptoms under which hysteria may reveal itself in a given case, have their origin in suggestion, in fright or in other emotional factors. Third, in the enumeration of causes, trauma—physical injury—must be omitted, for trauma unconnected with fright plays no role. It is a noteworthy fact that trauma occurring during sleep or during surgical anæsthesia is never followed by hysteria. Further, it is a matter of common experience, that persons injured during sports, in gymnastic exercises, in foot-ball, never develop "traumatic hysteria." This is true also of accidents to rail-

road employees, who form a notable contrast in this respect to passengers. I have never, in the large number of railway accidents in which I have subsequently examined persons supposed to be injured, found a locomotive engineer, fireman, brakeman, conductor or motorman suffering from hysteria. Physical injuries I have found, to be sure, but never hysteria, and I know that my experience in this respect is in accord with that of others. However, when the right to recover damages is present, the immunity of railroad employees disappears. Thus a trolley car conductor while off duty was struck by a falling ladder; he subsequently brought suit for alleged injuries; a medical examination revealed that his symptoms were those of an ordinary hysteria. Again, a Pulman porter claimed to have been injured by the jarring of a train; here liability existed he having the same right to recover as a passenger; he brought suit against the railway company and upon examination his symptoms likewise proved to be those of hysteria. In Germany where workmen's compensation laws are in active operation, railroad employees form a not inconsiderable number of the cases of hysteria claiming compensation; indeed, they often prove to be among the most persistent and insistent of the pension seekers. The fact that physical injuries of themselves never lead to hysteria cannot be sufficiently emphasized. Other writers, among them Schultze[2], have also pointed out this fact.

PHENOMENA OF HYSTERIA.

Having considered the nature of hysteria and the mode of origin of its symptoms, let us now turn our attention to the latter in detail. Hysteria being part and parcel of the makeup of the individual, its symptoms may be in evidence at any time of life. Again, inasmuch as they are mental in character, they may manifest themselves in the most varied manner. Some of them may consist, as we have already seen, of sensory phenomena, others of palsies or other disturbances of motion; some of them may consist of phenomena simulating disease of various organs and others still of phenomena simulating disturbances of the mental functions. While all of the symptoms are mental in character, it is notwithstanding convenient for purposes of study to divide them into sensory phenomena, motor phenomena, visceral phenomena and special psychic phenomena.

Sensory Phenomena.—These have in part been already considered as has also the mechanism by means of which suggestion is effective in their production. Suffice it here to say that sensory phenomena may present themselves as a diminution, a loss, or an excess; that is, there may be elicited a hypæsthesia, an anæsthesia or a hyperæsthesia. As already pointed out, being mental in origin, these sensory phenomena bear no relation to the facts of anatomy. The nerves supplying the part and the sensory pathways and centers in the spinal marrow and

brain are alike ignored. As already shown, there may be noted an anæsthesia of a hand investing the latter like a glove; such an anæsthesia, spoken of as a glove-like anæsthesia, bears, as pointed out, no relation to the facts of nervous anatomy. A similar loss of sensation may be present in the foot and leg and is then spoken of as a stocking-like or boot-like anæsthesia. Again, it may involve a segment of a limb, e. g. from the knee to the hip and is then spoken of as a segmental anæsthesia. It may on the other hand be limited to an irregular patch on the trunk, limbs or face. Such an instance is spoken of as a geometric anæsthesia. As in the case of glove-like and segmental anæsthesia, geometric anæsthesia bears no relation to any anatomical facts.

Not infrequently, as already described, a sensory loss may involve one half of the body, constituting a hemianæsthesia. A hysterical hemianæsthesia is delimited from the opposite side by a line running vertically back and front over the middle of the body sharply bisecting the latter; such a sharply defined hemianæsthesia cannot be referred to a definite anatomical lesion and we are again forced to assume a mental origin.

Instead of a sensory loss, which, it should be repeated, is usually only partial, a hypæsthesia, there may be developed upon examination an exaggerated sensory response; i. e. a tenderness, a hyperæsthesia. Such a hyperæsthesia may be widely diffused; for instance over the back, where, especially in accident cases it is very

common, or over the abdomen. More frequently, however, it is noted in the form of small isolated spots, rounded or oval in shape; the so-called painful stigmata. If such an area be touched, especially when the patient has full knowledge that an examination is being made, the patient's reaction may be excessive, i. e. he will react as though the area touched were excessively sensitive or painful. This hyperæsthesia, whether diffused or occurring in small areas, is characterized by a remarkable fact; namely, if the finger of the examiner comes lightly in contact with the supposedly sensitive area the patient, as already intimated, reacts excessively—acts as though he were suffering acutely, but if the finger or the hand be now allowed to rest upon the supposedly painful area and if, without attracting the patient's attention, deep pressure be gradually made, no painful response is elicited. Clearly the patient refers the supposed tenderness to the surface only. Further, he becomes entirely unconscious of it when his attention is fixed upon some other portion of his body. If, for instance, painful areas or points of tenderness be found over the back or spine, and, if the hand or fingers of the examiner be allowed to rest on these areas or points at the same time that the patient's attention is drawn to the front of the chest, to the abdomen or elsewhere—as when the physician, his hand still resting upon the tender area over the spine, proceeds to auscult the heart and in his conversation, directs the attention of the patient to the heart's action—no re-

sponse is made by the patient whether the supposedly painful area be pressed upon or not. In other words, the pain and tenderness of hysteria, like the other symptoms, are purely mental and as such are readily demonstrated to be unreal.

Areas of this so-called painful hyperæsthesia may make their appearance upon any portion of the trunk or limbs, i. e. upon any portion of the body, in accordance with the spontaneous autosuggestions of the patient or in accordance with suggestions received from without; among the latter are the suggestions following traumata real or supposed upon the back or other portions of the trunk, limbs or head. In addition, tender areas occur relatively frequently in certain situations, e. g. a small oval area is frequently found over the ribs just below the mammary gland and another small oval area immediately over the groin. It is suggestive too that these painful areas are found more frequently upon the left side of the body than upon the right and possibly for the same reason that, as Babinski points out, hemianæsthesia is also found so frequently upon this half of the body. When found below the breast the area is often spoken of as "inframammary" tenderness, and when found over the groin, as "inguinal" tenderness. This so-called inguinal tenderness at one time gave rise to much confusion. It was early termed "ovarian" tenderness being supposedly due to a painful ovary, but experience soon showed that it had nothing whatever to do with the ovary. Time and again,

in years gone by, the ovary was removed by the surgeon and yet, as a matter of course, the tenderness persisted. A brief investigation will always in a given case show the extremely superficial and unreal character of this inguinal pain. Thus, it may be included in a fold of the skin and actually raised from the body. Finally, it disappears in a bimanual examination, just as does the pain over the spine.

Painful spots are found with great frequency over the tips of the spinous processes, especially in litigation cases. Quite commonly they are found over the seventh cervical spinous process and over the lower dorsal and lumbar spine. At times they are limited to or are especially pronounced in certain regions, e. g. in the neck, the small of the back or at the very end of the spine, the coccyx. Quite frequently they owe their origin to the special suggestion offered by the history of the accident, namely, of a blow upon the back, but just as frequently they are met with without such a history. Not being properly understood in former years, they gave rise to the name of "railway spine" and to such other terms as "spinal irritation," "spinal tenderness," "spinal concussion." Theories of spinal anæmia, spinal congestion, inflammation of the membranes of the spinal cord or of its substance, were variously formed to explain their existence. How these were perforce abandoned we have already seen.

Occasionally points of tenderness are noted over the

inferior angle of the shoulder blade, here or there over the small of the back or over the scalp. Sometimes tenderness is noted over an entire limb though more frequently in certain limited situations corresponding with the supposed results of the special trauma presented by the history. When noted upon the scalp, the areas may be very small or quite large. Sometimes the pain is described in very exaggerated terms, e. g. as though a nail were being driven into the head and this has given rise to the expression "clavus hystericus," now no longer much used. That in accident cases their location has to do with the suggestion offered by a blow upon the head, real or supposed, goes without saying.

That these supposedly painful areas present various features which reveal their true character upon examination has already been shown. They also present another peculiarity which obtains especially in cases involving litigation, and that is that the tenderness persists for months and years, persists indeed as long as litigation is not disposed of. Time and again a plaintiff will present himself for examination shortly before the trial of his case, the accident complained of having taken place, two, three or more years before, and yet at the examination will present various areas of tenderness over the spine, back, limbs and elsewhere and react during the examination as though these areas were acutely painful. The examination—by the methods already described—reveals their superficial and unreal character, and yet the plain-

tiff may act as though these areas were causing serious suffering. It is a remarkable fact, too, that just in these cases, the plaintiff makes statements as to the duration of bruises and of black and blue marks—namely, that they persisted for many weeks and months after the accident and also tells of constantly recurring "swellings" in the painful part—statements, which are out of all keeping with hospital experience. They are obviously untrue, and yet the plaintiff—perhaps as a result of his autosuggestion—seems to believe them. Many times, however, it is quite evident that he wilfully exaggerates or brazenly lies.

Patches of painful tenderness may also be found upon the various mucous membranes, more especially upon the mucous membranes of the vagina and of the rectum. When present in the vagina, they may be limited to small areas which upon inspection reveal no change in appearance to the naked eye nor to any other examination. Sometimes the tenderness is diffused over the vagina as a whole and even shared in by the vulva. Such symptoms are usually associated with vaginismus, in which the plaintiff declares that it is impossible for her to have coitus because of pain and spasm. The purely psychic origin of vaginismus is well illustrated in an instance observed by the writer in which a young woman suffering from hysteria developed this symptom, during the continuance of which she refused to receive her husband. She was visited by a sister, also a young married woman.

The patient's recital of symptoms was followed, in the sister, almost immediately afterward by an attack of the same symptoms, and she likewise for a time refused to receive her husband. Strangely enough in litigation cases similar statements are frequently made. Time and again it is alleged that the marital act has become painful and that the plaintiff can no longer be a wife to her husband, and yet in more than one instance in the writer's experience, the plaintiff, has become pregnant and been delivered of a child during the long delay pending the trial. Vaginal hysteria is constantly misinterpreted. During a digital examination, for instance, the plaintiff may conduct herself as though every organ in the pelvis were painful, and not only do physicians report on the finding of "painful" ovaries, but some even discover abnormalities as a result of the accident, such as prolapsus of one or both ovaries or anomalies of the position of the uterus, when the conditions observed can readily be demonstrated in other persons who are entirely well and who have never presented a single pelvic symptom. Similarly we not infrequently hear upon the witness stand a recital of findings such as tears of the neck of the womb or perinæum, all attributed to an accident when such conditions are clearly the result of childbirth. Such statements would be amusing did they not constitute such serious and flagrant perversions of the truth.

Another and very important aspect of the subject remains to be considered. At times a patient will hold a

limb in a fixed position and will complain of pain whenever an attempt is made to move it, the pain being referred to a joint; for instance, the ankle or the knee. The examination soon reveals that the tenderness is not in the joint at all. The patient who has her eyes upon every movement of the doctor, flinches whenever the skin covering the joint is touched, though ever so lightly, while a jar through the limb given stealthily and at a moment when the patient's attention is actively directed elsewhere is not followed by any reaction. Frequently too "hysterical joints" are associated with fixation and contracture of muscles. To this we will presently return. Naturally, hysterical joints are more frequently observed in the lower extremities due here to the more frequent incidence of the suggestion of trauma. They are of course met with elsewhere.

Motor Phenomena:—When we turn our attention to the motor phenomena of hysteria, we find that in given instances the plaintiff believes that an extremity is paralyzed; or, instead of paralysis being present, there may be spasm of the muscles, fixed contractures, or there may be tremor or incoördination of movement. Like the sensory phenomena, the motor phenomena cannot be referred to any organic lesion, i. e. they cannot be explained by any of the known facts of anatomy. A paralysis, like a sensory loss, may be limited and may involve merely a portion of a limb. It is never, however, limited to individual muscles or to a group of muscles; thus if the

arm be paralyzed, both flexors and extensors are involved. The paralysis may affect one limb, or homonymous portions of the body; for example, both legs and thus give rise to a paraplegia; or it may involve one half of the body and give rise to a hemiplegia. Very rarely a general paralysis, involving both sides is observed.

The palsy of hysteria may vary from a mere weakness to an apparent total loss of power. Most commonly it is attended by relaxation or flaccidity, though, at times, the limb is rigid or spastic. When rigidity or spasticity is pronounced it may give rise to a marked fixation or contracture of the limbs. Usually the nutrition of the muscles remains unaffected, but in cases of long duration some diminution in volume such as results from want of use, may be observed; a true degeneration of the muscles, however, never occurs. An electrical reaction of degeneration is, therefore, never present. (See glossary.)

One of the important facts associated with hysteric paralysis is that the paralyzed limb is frequently without feeling; especially is this apt to be the case if the paralysis be flaccid. Thus, if we examine a hysterically palsied arm, we find that the patient reacts as though the arm were also anæsthetic. In other words the patient associates in her mind loss of power with loss of feeling, and both phenomena have the characteristics already pointed out; i. e. there is no relation to the anatomical facts of nerve supply and distribution. Not infrequently,

if there be rigidity, fixation or contracture, the patient reacts as though the part were painful. The sensitiveness, tenderness or pain—however it may be described—is typical in that it is superficial and presents the other characteristics of painful hyperæsthesia which have already been described. They are frequently associated with the so-called hysterical joints. (See p. 34.)

Hysteric paralysis may come on quite suddenly, or it may begin as a slight weakness and gradually grow more pronounced until it becomes marked or complete. Again, a trivial tap upon a limb may result in a complete paralysis, while a real injury, involving it may be a bone, a joint, muscles, tendons, or nerves, may not be followed by any hysteric reaction whatever.

Again, hysteric paralysis is very variable in duration. Sometimes it is very persistent; especially is this the case when it has existed for a long time and when the association in the patient's mind with the supposed cause of the paralysis—e. g., trauma—cannot for the time being be broken up or dispersed. This is noticeably the case in the hysteric palsies and other hysteric symptoms which make their appearance in predisposed individuals after railroad accidents. Here the palsy persists until the claim is disposed of, no matter what form of treatment may be adopted. The patient's arm, for example, remains paralyzed until the case is actually settled, that is, the money actually paid over. Examinations are no longer made, physicians no longer consulted and the paralysis disappears.

The palsies of hysteria, like the other symptoms, point unmistakably to a mental origin. For example, a hysterical hemiplegia presents features which enable us to distinguish it at once from organic hemiplegia; thus, the arm is most frequently flaccid or nearly so and does not assume the position of secondary contracture usually met with in organic hemiplegia; the leg is usually more involved than the arm; is held somewhat stiffly or is dragged in walking as though it were dead and helpless; or, curiously enough, it is shoved in advance of the patient as he walks. The gait only superficially resembles that of organic hemiplegia. Further, the muscles of the face are never paralyzed. There is never any involvement of the lower half of the face, as in organic hemiplegia, and a total palsy of one half of the face, such as is met with in Bell's palsy, likewise never occurs. The tongue when protruded sometimes deviates from the middle line, but in such case it always deviates not to the paralyzed but to the sound side, exactly the reverse of that which takes place in a true hemiplegia; that is, in an organic hemiplegia involving the face, arm and leg of the same side. Again, the palsy in hysteric hemiplegia is equally marked in all of the segments of the limbs. In true hemiplegia we know that the palsy, like the sensory loss, is most pronounced in the distal portions of the extremities and less marked in the portions proximal to the trunk. Thus, the hand and forearm are more affected than the arm and shoulder; the foot and leg, more than the thigh and hip.

Hysteric paraplegia is not infrequently met with, but it likewise is, as a rule, readily differentiated from organic paraplegia. If the plaintiff with an hysteric paraplegia walks, he usually employs canes or crutches. Quite commonly he handles the latter in such a way that they cannot be of any possible assistance either in bearing the weight of the trunk or in locomotion. Frequently he calls for his canes or crutches, and when they are handed to him, rises from his chair before he has adjusted them. In other words he does not use his crutches or supports as the person does whose legs are really weak, lame or paralyzed. Frequently, too, he subconsciously, withdraws his attention from his crutches, releases them, and resumes his chair without their assistance.

The walk, too, is very variable. Sometimes the legs are held stiffly and a spastic gait is simulated; at other times, though less frequently, the legs are handled as though merely weak; in either case the plaintiff drags or shoves them along the floor. In other cases, still, he may throw them wildly about or move them in some very irregular and grotesque manner. To this point we will presently return.

Quite often the plaintiff will declare that he is utterly unable to walk or even to sit up and, in such case, will usually remain continuously in bed. Usually he moves his legs about more or less spontaneously, especially when not under examination. When examined, however, there is apt to be a more or less dramatic exhibition of weak-

ness, the plaintiff lying absolutely quiet as though utterly unable to move, or, at other times, complying, or apparently trying to comply, with the examiner's request that he move his legs but moving them very little. If he moves them at all, certain phenomena occur of which he is not aware. Thus, the examiner, we will say, directs his examination to one leg at a time; e. g. he requests the plaintiff to raise one leg off the bed. If the examiner, his attention being apparently riveted on the leg which the plaintiff is raising or apparently trying to raise from the bed, now slips his hand under the heel of the opposite foot, it is found that the plaintiff moves this limb also, i. e. he depresses it into the bed, often with force. He himself is not aware of what is taking place. This test is especially valuable in cases in which paralysis of one leg is claimed or in which one leg is stated to be more affected than the other. If, in such an instance, the examiner having placed his hand under the parlyzed leg, directs the plaintiff to raise the sound or less affected leg from the bed, the paralyzed leg is immediately moved by being depressed into the bed and in proportion to the degree and the force with which the sound leg is elevated.

Often the plaintiff is quite emotional during the examination, protesting loudly that he cannot move his legs; usually he conducts himself as though the effort entailed great suffering; he moans, groans, weeps. At other times, he is quiet, but conducts himself as though the examination were in itself an indignity and abuse. Such

behavior is common to both men and women but is especially marked in the latter. It is a remarkable fact that just such behavior is absent when there is a true, an organic, loss of power, when there is an actual lesion, an actual structural change in the spinal marrow.

There are of course many other signs by which the spurious paraplegia is distinguished from that which is real. Thus, in a true paraplegia the involuntary muscles are involved as well as those which move the limbs; namely, the muscles which control the bladder and the bowel, the sphincters. In hysteria the sphincters are never involved save in so far as they are under the control of the will. A true paralysis of the sphincters such as occurs in a destructive lesion of the spinal marrow, never occurs in hysteria. An organic incontinence of the bladder for instance with its constant overflow of urine, excoriation of the genitals and infection of the bladder, is never met with. This is true also of the bowel, with its leakage and spontaneous and helpless evacuations into the bed. When examining a case of hysterical paraplegia, the careful examiner notes the absence of urinary and fecal odor, or of stains of urine or fecal matter upon the clothing or bedding of the patient. Physicians cannot, however, be too careful in making their investigations; especially reprehensible is conversation upon the question of the sphincters during the examination. The hysterical individual is remarkable in the readiness with which symptoms are assumed and added to those already

present. In several instances I have known a plaintiff presenting hysterical paraplegia, and in whom the sphincters were obviously intact, but who had been asked the question whether he could hold his water, subsequently allow the urine to escape into his clothing or bedding, or, even during the examination, upon his person. Similarly we may meet with hysterical retention of urine. Both conditions are of course spurious and bear the ear-marks of being mental in origin. Hysterical simulation of paralysis of the bowel I have not met with, though I have little doubt that under given conditions it could be produced.

There is one condition, however, which hysteria does not simulate and for obvious reasons, and that is the bed-sore. The back, the sacrum, the coccyx may become sensitive and reddened from continuous lying in bed, but a bed-sore with its sloughing base, its ragged edges and infected surfaces does not occur.

Again, the motor phenomena presented by hysterical paraplegia have as their accompaniments, sensory disturbances. These are typical in that they belong to the type of the stocking-like and segmental losses already described.

In studying hysterical cases, we always—as in other cases—examine the various reflexes. The muscles and tendons are normally mechanically irritable; that is, if a muscle or its tendon be struck a blow, the muscle responds by a contraction. Certain muscles and tendons because

of their accessibility are frequently tested by physicians in their examinations; particularly is this true of the tendon below the knee and of the tendon above the heel. If, the leg being flexed and hanging as in a person seated upon the edge of a bed or table, the tendon below the knee —the patellar tendon—be struck a moderate blow with the edge of the hand or some blunt object, the leg is thrown or jerked forwards and upwards. This phenomenon which is known as the knee-jerk or patellar reflex, varies considerably in health and disease. There are certain affections in which it is absent, e. g. in locomotor ataxia and in total transverse lesion of the cord; there are others in which it is more or less exaggerated as in sclerosis of the lateral columns of the cord. In hysteria the reflexes do not present constant phenomena. They may not differ from the normal; they may be somewhat exaggerated though never—unless it be in a case trained by suggestion—to the degree seen in organic disease. Finally, they may be less than normal but they are never absolutely lost; though here a caution must be uttered for there are some persons—rare to be sure—who though in apparent health never have a knee-jerk. The same remarks apply to the jerk elicited by striking the tendon above the heel, the Achillis-jerk or to the to and fro movement obtained by suddenly flexing the foot upon the leg, the ankle clonus. In studying these phenomena in a hysterical person, we must remember that the muscles called into play are also under the influence

of the will and that variations dependent upon suggestion either spontaneous or received from without may be —and frequently are—met with.

For many years a symptom to which Babinski first directed attention and which subsequently became known as the Babinski sign, has been of great value in differentiating between a hysterical and an organic paralysis of the legs. The sign consists in the fact that when in an organic case the sole of the foot be gently stimulated or irritated as by a toothpick, pin or other object, the toes, especially the great toe, become extended; i. e. are turned upward. If the same test be made in a normal individual, the toes either do not move at all or they are flexed, i. e. are turned downwards. If, therefore, in a given instance the toes are extended, we conclude at once that a real, a structural change is present in the nervous system. In hysteria the sign is, of course, absent. Caution, however, as in making other tests, must here be exercised. If the physicians indulge in conversation or discussion concerning the sign, the patient may promptly respond by extending the great toe and perhaps the others. In other words, the patient may be indirectly trained to produce the symptom. This I proved conclusively in a case in which obvious hysteria existed, but in which the toes responded by a prompt and full extension. The fact that the extension of the toes usually takes takes place rather slowly, is indeed often a little delayed, suggested to me that the reaction observed was not genuine. How-

ever, apparently accepting the symptom and concerning the presence and importance of which the physician for the plaintiff was very voluble, I stroked the sole of the foot rapidly in succession with the tip of a wooden toothpick. Each stroke was followed by a prompt extension of the toes. I then repeated the test, again stroking the sole of the foot in rapid succession, but now, while still making the gesture with my hand, I suddenly omitted to touch the sole of the foot. The plaintiff promptly responded by an extension of the toes just as though the sole had been touched, thus clearly demonstrating the spurious nature of the reaction.

Other reflexes and tests than those considered above are of course known, but they are of minor importance, and concerning them it is merely necessary to apply the general truth that just in so far as they deal with phenomena normally under the influence of the will, so far may they fall under the influence of suggestion.

As already mentioned, (see p. 35) fixation of position and contracture of muscles are frequently observed in hysterical patients, Thus, a hysterically paralyzed arm may in addition to the palsy be contracted, i. e. the arm may present a spastic instead of a flaccid palsy. The position assumed may be that of simple flexion of the forearm upon the arm with flexion of the wrist and fingers, or, it may be, that an exceedingly curious and bizarre position is assumed. Similar phenomena may be observed in the lower extremity, though here usually the

tendency is to rigidity with extension. The contractures only rarely simulate those of organic disease. Thus, if the position of the arm and fingers be studied, it is seen that it differs markedly from that commonly observed in an organic hemiplegia. This is true alike of the position and degree of flexion of the arm and of the position assumed by the wrist and fingers; the attitude may be that of a strange contortion. Particularly is this true of the positions occasionally assumed by the feet. Here, not infrequently, the picture presented differs widely from the simple extension observed in organic disease, the feet and toes assuming grotesque and apparently impossible positions, especially such as may suggest—more particularly to the lay mind—gross distortion from mechanical injury. Again, associated symptoms are usually present, e. g. superficial tenderness about the joints (see p. 34) or perhaps areas of anæsthesia. Finally, in hysteria, the rigidity frequently involves the limb equally as a whole, the large segments proximal to the trunk such as the upper arm and thigh being as fixed as the wrists and fingers or ankles and toes. In organic contractures, it is in the distal portions of the extremities that the symptom is most pronounced, while the parts proximal to the trunk are much less affected. In other words the picture presented by the contractures of hysteria, like the other symptoms, reveals their mental origin.

The hysterical person may also tremble, i. e. have a tremor. This tremor may consist of to-and-fro oscilla-

tions of variable rapidity. The rate may vary from 4 to 12 in a second; usually the rate is from 7 to 9 in a second. Quite commonly, too, tremor ceases when the plaintiff is from under observation, and reappears, or becomes more marked, when the plaintiff finds himself under observation; the extent of the movements also increases at such times. This is likewise true when the plaintiff is asked to make a voluntary effort.

Incoördination of movement is less frequently met with in hysteria than palsy, contracture, or tremor. However, when present, it may give rise to an awkwardness in the use of the affected extremity, such as an arm, and is then commonly associated with weakness, i. e. with an hysteric palsy. The presence of anæsthesia or other hysterical symptoms at once confirms the diagnosis. The incoördination may involve all of the extremities. Much more frequently, however, it involves the legs (see p. 38) and we then have present the picture of an hysteric ataxia or an "astasia-abasia" so-called. Usually incoördination becomes evident only when the patient attempts to make an effort; for instance, when he attempts to stand or to walk. When the patient is lying down or sitting in a chair, there is power to move the legs normally in all directions, but when the patient attempts to rise, the ataxia at once becomes manifest, and if he tries to walk, it quite commonly becomes very pronounced. Hysteric ataxia, of course, is present in varying degree. Not infrequently, however, it is quite marked. If the patient

be able to walk, the gait does not resemble that of locomotor ataxia in the slightest degree. There is great irregularity of gait; wide, oscillatory, coarse or grossly bizarre movements of the legs, arms and trunk; quite commonly these phenomena are associated with a demeanor and conduct on the part of the patient as though he were afraid of falling. Quite frequently too he becomes emotional during the examination.

Phenomena presented by the Special Senses:—When we turn our attention to the special senses, we find phenomena similar to those already considered. The most familiar instance is that in which the field of vision is concentrically diminished, i. e. as though the peripheral portion of the retina were the seat of anæsthesia. Every now and then the patient claims that he cannot see at all, a blindness, hysterical in nature being present. Such losses of vision are, of course, unreal as is easily demonstrated by simple ophthalmological tests; such as covering the affected eye with a plain glass and the sound eye with a glass of such refractive power that the patient cannot possibly see distinctly through it. He is then asked to read and proceeds to comply with the test entirely unconscious of the fact that he is reading with his supposedly blind eye. Contractions of the visual field, it should be pointed out, are suggested to a hysteric patient with the greatest ease, just as is a hysterical hemianæsthesia (see p. 19). Everything depends upon the manner in which the examination is made. The test object

should invariably be carried from the center outward and the fact of failure to see determined by indirect questions. Never should the test object be held in the periphery of the field and the question asked "do you see this"? For reasons pointed out in discussing hemianæsthesia, the answer will naturally be "no."

Quite commonly, it should be added, a contracted visual field is found on the side in which a hemianæsthesia has already been elicited. At times, too, the limitation of the visual field assumes a character which at once demonstrates its psychic origin, i. e. the area of the contracted field remains of the same size whether the perimeter—the instrument by means of which the visual field is studied—is held near or far from the patient, i. e., a so-called "tubular vision" is observed. Such a modification of vision is obviously mental.

Hysteric losses may also be met with in the function of hearing. Hysteric deafness may follow suggestion and may be an accompaniment of a hemianæsthesia. Quite frequently its unreal character can be demonstrated by means of a binaural stethoscope; the ends of the tubes being introduced into the ears of the patient, the operator stands back of the patient and converses with the latter by speaking into the stethoscope in a low voice. The sounds are, of course, conveyed to both ears and the patient naturally replies to questions or complies with various instructions. If, now, the physician compresses the tube leading to the sound ear and the patient con-

tinues to hear, he must, of course, hear with the hysterically deaf ear. Usually hysteric deafness is like the loss of vision, incomplete. Bone conduction is, of course, well preserved, though its existence may be denied and may not be demonstrated save by stealth. It is a suggestive fact also that hysteric deafness is quite commonly, if not indeed always accompanied by hysteric anæsthesia of the outer ear and to a variable degree of the auditory meatus.

Loss of the senses of smell and taste may likewise be claimed in hysteria. A patient, especially one in whom a hemianæsthesia has been developed, may stoutly maintain that he is unable to smell upon the hysteric side or to taste upon this side; sometimes loss of smell and taste are complained of by patients who do not present hemianæsthesia. However, the patient when tested with various sapid substances will maintain that he does not taste them upon one or perhaps both sides of the tongue. If irritating substances, such as capsicum be now applied, or if physical irritation, such as pricks with a pin, be employed, the patient likewise denies that he perceives them. In other words, he makes no distinction between gustatory loss and tactile loss. Quite commonly, too, such a patient not only fails to respond when tested for tactile impressions upon the tongue but also when the gums, the mucous membrane of the cheeks and inside of the lips are tested. Similar remarks apply to the loss of the sense of smell. Here also the loss is associated in the patient's mind with tactile loss, and no distinctions are made by

him between loss of smell and loss of those sensations which are only aroused by purely physical or mechanical impressions.

Visceral Phenomena.—The visceral phenomena of hysteria are, like those already considered, of such a character as to demonstrate their mental origin. Among these disturbances we have to note especially vomiting, loss of appetite, "anorexia nervosa," palpitation of the heart, "tachycardia," various vasomotor phenomena such as local flushing, rapid breathing, coughing, yawning, retention of urine, variations in the quantities of urine, phantom tumor, aphonia, spurious aphasia, and various sexual phenomena.

Hysteric vomiting when present may be associated with loss of appetite and may be so severe as to simulate vomiting the result of organic disease. Pain may be referred to the epigastrium and may lead to the erroneous diagnosis of gastralgia. It may, further, be exceedingly limited in character and distribution and thus may simulate gastric ulcer. The patient may even spit blood and in this way simulate the bleeding of an ulcer. However, the differentiation is, as a rule, made without practical difficulties. There is really an entire absence of all genuine evidence pointing to organic disease, such for instance, as is furnished by test-breakfasts or by a microscopic examination of the stomach contents. At most there may be some atony of the stomach or possibly a mild secondary gastric catarrh, but usually there is nothing.

Loss of appetite is occasionally very profound and has in such instances received the name anorexia nervosa. The patient declines to take food, declares that it nauseates her and rejects it if administered, but strangely enough reveals little change or impairment of her nutrition. Indeed, in many instances in which the protestations of the patient are loudest and her conduct most dramatic, her nutritition is of the best. In other instances, again, though infrequently, there is a loss of weight, sometimes very marked, due to the long continued insufficient taking of food. The fact, however, that the symptom yields to suggestion and especially to massive and forced feeding is sufficient proof of its mental origin.

Palpitation of the heart, tachycardia, may be observed in hysteria. This palpitation may be, and frequently is, associated with blushing of the face. Sometimes pallor and coldness of the surface of the body and the extremities may be noted. Hysteric rapid breathing is also occasionally observed. The increase in the rate of respiration may be very great; as many as 90 respiratory acts to the minute have been counted. It is not necessarily accompanied by tachycardia. Indeed, most frequently there is no disturbance of the pulse rate nor is there any dyspnea or any evidence of cyanosis. It need hardly be added that neither is there any evidence of any cardiac or pulmonary lesion.

Hysteric cough is a not infrequent symptom. As a rule, this cough is dry and is unaccompanied by any

physical signs. Sometimes, instead of cough, curious cries or sounds are emitted, which suggest the barking of a dog, crowing of a cock, or other bizarre sounds. In other cases again frequent and excessive yawning may be observed. As a rule, the act of yawning is very greatly exaggerated and very prolonged. Hysteric sneezing, a sneezing which is often very persistent, should also be added to this category.

At times the patient loses his voice; at other times he is mute, being apparently unable to speak. In both of these conditions, hysteric aphonia and hysteric mutism or aphasia, the signs themselves are of such a character and the other phenomena present usually so pronounced and unmistakable as to leave no doubt as to the nature of the symptoms.

Miscellaneous Somatic Phenomena.—Among other symptoms, fever has been described as occurring in hysteria. The author, however, after an experience of over thirty years in the hospitals without observing a single instance, is compelled to deny its existence. Fraudulent tricks with the clinical thermometer he has met with, true fever never. Trophic disturbances have also been claimed. These, likewise, the author has never observed. So-called hysteric ulcers and other skin lesions disappear as soon as the patient's access to them is prevented as by a plaster-of-Paris bandage or similar mechanical device. Now and then the muscles of a limb which has been persistently hysterically paralyzed for a long time show

some diminution in size. This diminution is, however, never very marked, and results simply from disuse and cannot in any sense be termed trophic (see p. 35).

The localized swellings and edemas which are at times noted as occurring in connection with paralyzed limbs—never very marked—are likewise to be attributed to disuse and secondary circulatory disturbances. Local flushings, "skin writing," dermographia, and kindred phenomena are but part and parcel of the other circulatory changes admittedly the result of mental and emotional influences. Blushing, pallor and other vaomotor perturbations can hardly be termed trophic.

The bladder also, now and then presents symptoms, though such symptoms differ radically from those met with in organic disease. They have been in part already considered. (See p. 40.) Very often the patient presents the symptom of unusual frequency of micturition. Less often he asserts that he cannot hold his water; however, if the clothing and bedding of such a patient be examined, it presents no evidence of having been soiled or stained nor is there any odor of urine. Wilful deception may, of course, be practised. Now and then retention of urine is complained of, but it is a retention which is often not real and which when ignored leads to no evil results. True paralysis of the bladder or sphincter, as has already been pointed out, is never observed.

Many hysteric patients present the symptoms of polyuria, i. e. of an excessive secretion of urine; such patients

as is well known, may pass a very large amount of urine, especially after a hysteric paroxysm or hysteric emotional disturbance. The urine in such case is light colored and of low specific gravity. Less frequently cases of hysteria are met with in which the urine is greatly diminished in amount and in given instances the claim of an absolute suppression of urine is made. That such claims are fraudulent goes without saying. Patients with hysteric anuria never present the symptoms associated with the actual suppression of urine. Such symptoms, due to profound intoxication,—unconsciousness, coma, convulsions, death—are conspicuous by their absence. Further, when such patients are observed by stealth, it is found that, although the night vessel is not used, it may be that a soap dish or pitcher or other article about the room has been utilized and the urine subsequently surreptitiously disposed of when the patient believed herself from under observation. Such conduct on the part of the patient is in keeping, as we shall see, with other mental phenomena not infrequently present.

Now and then we may observe an undue distention of the abdomen, so that the patient may present a superficial appearance of pregnancy. At times, also due to an irregular contraction of the abdominal muscle, the distention is irregular in outline and in this way a so-called "phantom tumor" may be produced. The physical examination, of course, reveals the nature of such phenomena. Now and then phantom tumors are due to a limited

contraction of a single muscle; for example, to a contraction of a belly of the rectus abdominis.

A large number of cases of hysteria, more especially cases of "traumatic" hysteria, complain of sexual disturbances. Not infrequently men claim that they have become impotent. Women, as we have already seen, may complain of their inability to receive their husbands alleging that coition is attended by suffering. Such instances, as has been pointed out, are cases of vaginismus dependent upon superficial painful areas in the vagina. That there is a great field here for gross misstatement and wilful deception, need not be pointed out. Besides, it is usually impossible either to verify or to disprove the assertions of the plaintiff. However, it has occurred in more than one occasion in the writer's experience that during the long delays pending trial, a woman making such a claim has become pregnant and given birth to a child, thus proving the falsity of the claim. Similarly, in the case of men claiming to be impotent, their wives have borne children; for example, in the case of a man presenting hysteric hemiplegia, there were two trials. In the first, the claim of entire loss of sexual power was made. For some technical reason a second trial was granted; the second trial was not reached for another year. In the meantime the wife gave birth to a child, the paternity of which at the second trial the plaintiff admitted. In another instance, in which settlement was made largely on the basis of the impotence claimed, the wife gave birth to twins within the year.

Psychic Phenomena:—The symptoms of hysteria thus far considered bear the unmistakable impress, as has been pointed out, of a mental origin. The mental condition of the patient has also to some extent been discussed. It is necessary now, however, to consider in detail some of the psychic symptoms themselves.

The mental symptoms, like the motor, sensory and visceral symptoms, impress us with their unreality and unessential character. In fact, there is something about them which even to the lay mind suggests their true nature. The simulation of abnormal mental phenomena is grossly imperfect. States of emotional excitement are very common, but the shrieks, screams, wild cries and weeping deceive no one. At most, a delirium or mental confusion may be simulated, but here, as in the case of the physical signs, the symptoms have the appearance of something that is not genuine, something assumed, something voluntarily and artificially produced. This is usually quite obvious in the ordinary hysteric paroxysm. Hysteric attacks may vary greatly in intensity, as well as in the symptoms which they present. They may be limited to comparatively slight emotional disturbances attended by weeping and laughter, or by transient changes of speech and conduct in which the emotional factors are so evident that even the laity recognizes the attacks as hysteric. Instead of being slight, the attack may be pronounced and even prolonged. Usually such an attack is preceded by a preliminary period extending over a num-

ber of minutes, several hours, or it may be over a day or two. During this period the patient acts as though she were out of sorts, becomes depressed, avoids the members of her household, is uncommunicative, irritable and perhaps is angry or weeps upon slight provocation; or she may be excited, restless, perhaps a little exuberant or even boisterous, or she may laugh and weep by turns. Very commonly she complains of choking sensations, clutches at her throat, says that she cannot breathe, complains of headache or other distressing feelings. Rarely a picture simulating a delirium is observed. Sooner or later a convulsion sets in. This convulsion is attended by a tonic spasm, during which the patient may present rigidity of all of the muscles of the limbs and trunk; at times, indeed, an opisthotonus, an "arc de cercle," may be present. Soon, however, the tonic spasm is followed by clonic movements, which are much greater in extent than those seen in epilepsy and of themselves suggest a voluntary character. Hysteric attacks are of variable duration; some are brief, others more prolonged, and in the latter the patient may contort the body into various bizarre positions, or may make gestures and movements clearly expressive of volition and purpose. Sometimes the patient tears her clothing, dishevels her person, assumes dramatic and passionate attitudes, shrieks and weeps. Little by little she becomes quiet, welcomes the sympathy and ministrations of her friends, and conducts herself normally, or, perhaps, goes to sleep.

It is characteristic of the hysteric attack that during its continuance the patient does not lose consciousness, a fact that is rarely admitted by the patient, but commonly capable of convincing proof; sometimes the fact that the patient is conscious during the attack is self-evident. The patient never hurts herself and betrays by her actions or by her subsequent statements a knowledge of her environment. The sphincter control is never lost, nor is there ever any biting of the tongue, as in epilepsy. A case repeatedly questioned, however, and acquiring the idea that the symptom of loss of bladder control is expected to be present, will at a subsequent attack wet her clothes. Similarly will she froth at the mouth or even produce from her gums a tinge of blood.

Instead of subsiding, an hysteric convulsion may pass into a phase in which the patient seems to hear voices, to see visions, and in which she utters disconnected phrases, is exalted, depressed, erotic, obscene. At other times, the patient appears to pass into a condition resembling somnambulism. Contrasted with a true delirium, for example a delirium due to an infection or an intoxication, a crass difference becomes apparent. The visions which the patient sees and which she dramatically addresses give the bystander the impression of being assumed, not genuine. The illusions of persons and objects are often exhibited in such a way as to give rise to the same conviction. The patient, being told that a certain person is her father, dramatically calls him by a strange name, and yet a mo-

ment later betrays that she knows exactly who the designated person is. Finally, neither the incoherence nor the delusions recall those of delirium proper. Long sentences and long phrases, at all times with a rich emotional content, replace the unrelated fragments uttered in the genuine affections.

The duration of a hysteric attack may be quite short, usually a few minutes, sometimes a few hours, rarely a day or more. Sometimes, instead of the patient becoming quiet and conducting herself in a normal manner, after an attack, she acts for several hours as though she were confused. These phenomena are to be looked upon merely as a continuation of the hysteric attack. At other times, as already stated, the patient falls asleep; sometimes this sleep is profound and simulates a coma, just as may the sleep of hypnosis. Further, a hysteric paroxysm may manifest itself by a sudden onset of confusion or of sleep, without a preliminary convulsive period. The duration of such an attack extends over a fraction of an hour or it may be a number of hours. Several days of sleep have been reported but this the writer has never observed.

Sometimes ecstasy or cataleptic phenomena are present; at other times, still, a somnambulism makes its appearance, the patient's conduct simulating the somnambulism of hypnotism. In this state the patient may perform various acts, often complex in their nature, requiring considerable time and bearing no relation to the occasion

or to the environment in which the patient happens to be placed. During the performance the patient acts as though she were oblivious of her surroundings. She usually returns to her normal condition quite suddenly and claims that she has no recollection of what has occurred.

The parallelism between hypnosis and hysteria is complete. The state of hypnosis is merely a paroxysm of hysteria artificially induced. The "good subject" is already the victim of hysteria before the hypnotist begins, just as he is already the victim of hysteria before the accident occurs. Hypnosis and hysteria are coequal terms. In each instance the phenomena observed are the outcome of a pathological vulnerability to suggestion. At times, as we have seen, active mental symptoms, such as delirium, may be simulated; and, indeed, occasionally in "accident hysteria" actual insanity is claimed. Always, however, the symptoms bear the stamp of their spurious character. No conduct is too absurd, no statement too grotesque or impossible. That the picture presented is inconsistent with any known form of mental disease need hardly be pointed out. Further, hysteric persons practise gross deceptions, simulate anuria, rise of temperature, undergo severe procedures, face painful operations, all under the autosuggestion of the genuineness of their symptoms or—may I be pardoned for saying it—in the voluntary effort to convince physicians and others. May I add, also, that the physician is often too ready to accept, as true, statements bordering on the marvelous?

He should, however, bear in mind that the impossible occurs only in hysteria. Not only the hospital clinic but the court-room offer abundant illustrations of this truth.

HYSTERIA AND COMPENSATION.

The above considerations abundantly illustrate the nature of hysteria, and but one additional fact remains to be pointed out; namely, that the phenomena of hysteria presented by a given case persist so long as the suggestion which called them forth persists. This fact has a special application to hysteria which follows accidents involving litigation. The writer has already pointed out (see p. 24) that trauma of itself cannot evoke hysteria, that unconnected with fright it plays no role. A hysterical woman may have a fall and subsequently, because of the fright and the suggestion of injury into which the fright resolves itself, may present a hysterical paroxysm. Most frequently crass hysterical phenomena do not ensue immediately; not indeed until some time has elapsed; that is, time is usually necessary for the suggestion of injury to become fully operative. In hysteria evoked by accident not involving litigation, the interval is usually short and the symptoms rarely pronounced. The latter, as a rule, fade and disappear spontaneously, or readily under the suggestion of treatment; unless indeed the treatment and the attitude of the physician and others is such as to confirm the belief in injury.

Under such circumstances, especially if the patient be made an object of interest, of sympathy, or of coddling care, the symptoms may persist for a very long time, perhaps indefinitely. In the vast majority of cases, however, in which the element of compensation is absent, the symptoms, as already indicated, rapidly subside and the patient resumes his usual condition.

The presence of the element of compensation, however, introduces a factor which influences alike the development, the intensity and the duration of the symptoms. It is quite a common history for a period of ten days, two weeks or longer to elapse before the full development of symptoms. The patient, who as we have seen is already the victim of the hysteric make-up or neuropathy, has been frightened by the accident, perhaps has received a few inconsequential bruises, or other injuries, in themselves insignificant, or perhaps no physical injuries whatever, but becomes immediately the object of the care of by-standers or fellow passengers. An ambulance or patrol wagon is summoned and he is taken to the hospital. Here he is examined for physical injuries. Sometimes none or only trivial injuries are noted, and he is dismissed to his home, which he reaches perhaps on foot, by street car or by carriage, often in the company of solicitous friends. A physician is summoned, it may be at once or it may be not for several days. Sooner or later, as a result of autosuggestion, re-enforced it may be by incautious questionings and repeated examinations, he de-

velops frank hysteric phenomena, weakness, palsy, anæsthesia or what not. Sooner or later an attorney is consulted, medical experts are called in, and the patient, now a plaintiff, rehearses many times the history of his accident, recounts his sufferings over and over and submits himself time and again to medical examinations, often without end. That under these circumstances the hysteric phenomena become confirmed and often reach a high degree of intensity, follows as a necessary corrollary. The plaintiff is subjected to a suggestion which is virtually a kind of training. It is a process which not only results in the production of symptoms, but also fixes the latter firmly in the plaintiff's mind. In keeping with this, it is an invariable rule that the symptoms become more pronounced during the preparations for trial. That the methods pursued are pernicious in the extreme need not be pointed out. It is a noteworthy fact, further, that if the expected trial be not reached or be for some reason postponed, the symptoms become less marked and often largely subside until the next date of trial approaches, when they again become more pronounced and often worse than before; indeed sometimes new symptoms make their appearance.

Sometimes the history varies somewhat in that the plaintiff did not immediately become the object of attention and of medical care at the time of the accident. Perhaps he stood around, assisted others, continued in the performance of his duties, walked away unattended, etc.,

but subsequently, likewise as a result of autosuggestion, developed hysterical phenomena. The further history of such a case is otherwise identical with that just outlined.

That the factor of compensation plays the all determining role has gradually been more and more clearly recognized. The suggestion of injury persists as long as the expectation of compensation persists.

In hysteria ordinarily the symptoms are often fugitive and shifting, and, as pointed out they frequently disappear spontaneously and quite commonly under the suggestion and persuasion of treatment. Not so, however, when the element of compensation is present. In such case, the symptoms undergo no improvement even when the most radical efforts at cure are made, so long as the question of compensation is undisposed of.

Abroad physicians have not been slow to recognize the truth. For instance, Heinrich Sachs of Breslau[3] after making a critical study of the subject, defines the accident neurosis as a reaction of degenerates to a pension-entitling accident. Another writer Erben[4] insists upon the importance of determining whether the neurosis was not already present prior to the accident, and points out that frequently no accident at all has taken place but is only assumed by the plaintiff. Ziehen[5] states that fright awakens a slumbering hysteria and that with Charcot we may regard fright as an "agent provocateur." According to Huebner[6], the traumatic neuroses present a patho-

logical reaction of a pathological individual to an accident. Morselli[7] also declares that in patients who develop a neuropsychosis after an accident, there is a predisposition psychological in character. Heynold[8] found that the greater number of the accident neurotics examined by him presented the stigmata of physical or psychic degeneration or both. In our own country Bondurant[9] also recognizes a pre-existing neuro-degeneracy; he regards the phenomena of hysteria as resulting from a combination in varying proportions of neurodegeneracy and morbid suggestibility. Windsheid[10] in speaking of the influence of claims for compensation, declares that when there is no claim, there is no traumatic neurosis. Morselli[7] points out that the traumatic neurosis is a product of a double obsession; first that of the injury and second that of the damages. Bailey[11] states "that there is a far greater probability that functional nervous disturbances will appear, or, if they have already appeared, that they will be made worse in any case which becomes the subject of medico-legal inquiry. Upon this point all authorities agree." Schuster[12] likewise points out that the thought of obtaining material damages for an injury is a dominating psychical factor. Murri[13] maintains that the great majority of the traumatic neuroses owe their existence to the fact that the injured person is insured against accidents or hopes to collect heavy damages; he shows that even when all the moral and physical factors determining the so-called traumatic neurosis are present,

if there is no possibility of financial gain, the pathological manifestations are not very severe and do not last long. Thus, five or six months after the Messina earthquake there was not a single person suffering from a neurosis caused by the earthquake; there were lacking the influences commonly operative in railroad accidents. He points out that traumatic neurosis is cured very rapidly and even immediately after the accident provided that the financial side of the accident is settled without delay; it lasts a long time and sometimes becomes incurable when a financial settlement cannot be reached. Murri advises further that more precautions be taken before accepting employees liable to be victims of traumatic neurosis, because often the injury is not the causa prima of the neurosis, but only the factor that brings to the surface a latent nervous lesion. Raymond Wallace[14], writing in much the same vein, states that "The natural mental inferiority of the injured one may, by designing lawyers, be attributed to injury. It is most essential to investigate in detail the physical, nervous and mental conditions of a claimant previous to an alleged accident. The moment the question of damage arises, the dominant or nearest relative usually exerts a most extraordinary and dangerous influence. Subsequent examinations by physicians, conversations with lawyers, inflame the patient's mind. He now exaggerates his symptoms. The detection of the various forms of accident psychoses as differentiated from organic injury is not always of easy moment,

and in many cases learned physicians will differ and appear as experts on opposing sides. Another phase of interest is that of pure simulation. This term should be employed only when the individual purposely and consciously attempts to deceive. He may wilfully exaggerate such symptoms as do exist, or represent diseased conditions to exist which either pre-existed the accident, or which do not exist at all. In short he may present symptoms or physical signs due to an accident which never occurred.'' Crook[15] in discussing Wallace's paper declared ''I cannot recall a single case of traumatic neurosis in my experience in which the lure of lucre has not played a most important part. There has been no definite disease in any of the cases. There has been in every case the expectation of profit from the time the suit was in process of formation or had been instituted. This is the largest factor in the etiology of traumatic neurosis in my judgment.'' Malone[16] in the same discussion pointed out that the railroad employee, when he is hurt, is anxious to get well; that he wants to get back to work as quickly as possible and that he is inclined as a rule to minimize his troubles; but that in the case of the passenger, it is otherwise.

When we turn our attention to the accident law abroad, more especially the workingmen's compensation acts, we find much interesting and confirmatory material. Already many years ago (1904) von Sarbo[17] called attention to the fact that in Germany since the introduction of the

accident law there had been an increase of cases of traumatic neurosis, while in Hungary, at that time still without an accident law, the number of traumatic neuroses was very limited. In 1906, Feilchenfeld[18] described a case of so-called "pension hysteria." The trauma was in itself insignificant and healed rapidly. The man resumed his work but subsequently abandoned it and began a battle for pension, stimulated thereto also, it would appear, by the contradictory views of physicians. A year later Schwarz[19] characterized the traumatic neurosis as an epidemic disease of the community; and placed the blame upon the humane accident law. He also claimed that it would only disappear if the idea of securing pensions could be dispensed with. Braun[20] of Prague, showed statistically on the basis of material collected in the course of twenty years, that previous to the introduction of the accident law, the most serious traumata produced no neurosis. Schultze[2] emphasizes the fact that no special functional nervous disease follows mechanical or psychic trauma and declares that pension hysteria is commonly only pension seeking. Mendel[21] describes this condition as "neurasthenia quaerulatoria" which is not a result of the accident but of the accident law and is not therefore a proper subject for compensation. Schaller[22] makes the significant observation that in Denmark 93.6 per cent. of traumatic neuroses recover; this result he points out is due to the fact that in Denmark a cash settlement is the principal method of dealing with accident cases, while in

Germany in which the pension system prevails, the percentage of recoveries is only 9.3 per cent. Becker[23] also declares that a prompt cash settlement is the best solution of the traumatic neuroses.

Zingerle[24] writing in 1911 calls attention to the increasing number of nervous disorders following accidents and points out that the unfavorable results go hand in hand with the time that the accident law became operative. Milton[25] shows that since "The introduction of the accident insurance law in England, in the year 1907, the number of accident cases has increased and that in comparison with preceding years, the number of workmen who show no improvement after a treatment of fifteen days had increased 10 per cent. In England the law is to the effect that for a fourteen days' disability, a compensation for seven days is allowed but from fifteen days on, the injured person is paid for the entire time." Naturally improvement takes place only under the most favorable provision. Bernard[26] "in a lecture delivered in Berlin before the German Association of Iron Founders, dwelt on some of the dangers of pension legislation. The masses, it would seem have the idea that every illness and every accident must lead to a pension. The attention of the people has consequently become morbidly concentrated on the processes going on in their own bodies; and 'pension hysteria' has resulted. Appearing sporadically, this affection has gradually developed into an epidemic, which seems especially evident in the industrial regions of Ger-

many. In consequence of the accommodating attitude of the law courts, this enervating concomitant of artisan insurance has attained such dimensions that, instead of the production of vigorous and happy human beings, a national degeneration is threatened. It seems that the German people must now combat the mischievous practice under which sickness pension and accident pension have been so bound up with one another that 'pension hysteria' has become a national disease." In France the accident law does not seem to have been so disastrous in its operation, due doubtless to the fact that its provisions are less enticing. Notwithstanding according to the report of the commission of which Sicard[27] was spokesman, accident cases have increased by a fifth and in addition to those presenting the traumatic psychoneurosis others appear who were exaggerators and simulators. It was also found that the duration of temporary disability is now decidedly longer than before the operation of the law. In the report of one of the great assurance companies of France, it is seen that before 1898, the average duration of temporary disability was fourteen days; in 1911 this average duration had risen to nineteen days. the situation in France, however, it would appear, is incomparably better than in Germany. In England, Byrom Bramwell[28] has called attention to the great increase of simulators since the introduction of the accident laws in 1907.

POST-LITIGATON RESULTS.

The fact that the hysteria is due not to an alleged accident but solely and exclusively to the existence of a claim for damages is further proven—and beyond all possibility of doubt—by the history of the plaintiffs after their cases have been settled or litigation otherwise disposed of. Time and again experts testify upon the witness stand that a prolonged course of rest treatment is necessary to restore the plaintiff to health, and yet my own experience, extending over thirty odd years and embracing many hundreds of cases, fails to reveal a single instance in which, subsequent to the settlement of a case, the plaintiff submitted himself to treatment. In other words, the plaintiff recovers when the element of litigation has been removed. All treatment ceases with the settlement; the symptoms disappear and the plaintiff forgets all about them. The true nature, if any proof were needed, of the accident neuroses is revealed by the undisputed results of settlement. Naegeli[29] reports on the late results in 138 settled cases. In not one case did he find a serious or persistent impairment of earning power. He is of the opinion that following the definite settlement of claims there is a rapid and complete restoration of the earning power. He maintains that in traumatic neuroses a persistent impaired earning power is not to be recognized but merely a transitory one. Boone[30] whose observations cover nearly seventeen years and were made "in con-

nection with the claim and legal departments of liability insurance companies, street and steam railroads, and in cases in which traumatic nervous disorders furnished the basis of claims, estimates that at least 95 per cent. of the claimants fully recovered within a reasonable time after their claims have been disposed of.'' Bailey[31] states that ''When the legal part of the case is finished either by settlement or by verdict, a most potent cause for the continuance of the hysterical symptoms is removed and within a year or so of the verdict, improvement or cure, can generally be counted on.

''The German system is in direct contrast to this. By the German system of indemnity, the money question ceases only when the symptoms do. Traumatic hysteria in Germany, therefore, is a more hopeless malady than it is here.'' Dye[32] declares that he does not recall a single plaintiff who was not cured shortly after the litigation. Morselli[33] states that cure is brought about through settlement of the claim or the promise of settlement. Diller[34] comes to the conclusion that in cases of traumatic nervous affections, improvement is seldom observed before compensation is received. It is indeed a matter of universal experience and must be accepted as an established fact that the plaintiff neither gets well nor improves, no matter what treatment is adopted, so long as his claim remains unsettled or so long as there is any hope of settlement.

Of the large number of litigation accident cases which I

have personally examined, I had the opportunity of making detailed studies in 605; of these 126 presented physical injuries, 32 presented no symptoms of any injuries physical or nervous, while the remainder, 447 in number, presented the characteristic picture of accident hysteria. In my earlier years, before I was familiar with the outcome of the latter group of cases, I frequently testified on the witness stand that the plaintiff would require prolonged medical care if a recovery was to be hoped for; that a long time would necessarily elapse and that the plaintiff might never be entirely well again. Sometimes the condition of the plaintiff would appear so grave that I believed that a formal rest-treatment consisting of prolonged rest in bed, bathing, electricity, massage, full feeding and what-not would be required before a restoration to health could take place. Time and again I have heard other physicians give like testimony; some of them indeed continue to give such testimony at the present day.

Instead of placing themselves under treatment, I found that just as soon as settlement had been effected, the plaintiffs regularly disappeared from view. On a number of occasions I tried to follow them up and to learn something of their subsequent condition. Almost invariably my efforts were looked upon with distrust, at times with suspicion, and quite commonly resented. Upon a few occasions I attempted to enlist the aid of the attorney for whom I had examined the case, but with like failure; the request that the plaintiff report to me was complied with

on but one or two occasions, and the visit never repeated. In not a single instance of which I have knowledge was a rest-treatment or indeed any kind of treatment carried out subsequent to settlement. What really becomes of these cases is illustrated by the following examples some twenty in number, which I have selected for the reason that in them the symptoms were especially pronounced; so pronounced, indeed so grave, that in each instance the plaintiff was carried into court on a stretcher or a chair, or was—so it was alleged—too seriously injured to be brought into court at all. For reasons which are obvious, I have selected old cases, cases long disposed of, and for equally obvious reasons these cases are here presented merely in outline and in as impersonal a manner as possible. The diagnosis and post-litigation results alone are emphasized.

I. W. N., female, aged 19, stenographer, passenger in a car which collided with a wagon. Collision slight; no one thrown from seats. Eight passengers. Conductor took all names. No one claimed to be hurt. Plaintiff asked why the car had stopped; afterwards admitted that she was not aware of the accident until some time after it had occurred. Remained seated in the car until she reached her destination, a distance of some forty odd blocks from the site of the collision; says that then she became very much frightened and continued to grow more so. Left the car, felt nervous and walked a distance of several blocks to the office of a physician. No bruises were discovered

but she complained of a sore spot on the left side of the chest. Walked home, went to bed, developed convulsions and finally paralysis of the left arm and left leg. Her physician afterwards said that he could get no account of an injury to the body of the plaintiff and he believed that the trouble was started by the conductor asking the passengers for their names.

The plaintiff remained in bed becoming steadily worse. Was examined repeatedly by physicians and nine months after the accident by myself. At that time she was found in bed, she presented the symptoms of a typical hysterical hemiplegia involving the left arm and left leg, together with a typical hemianæsthesia involving the left side of the head, face, neck, limbs and trunk. She kept both eyes almost closed; her visual fields could not be taken. She now stated that at the moment of the collision she had become unconscious and had remained so until near her destination. None of the passengers nor the conductor were aware of this or that she had been hurt.

She stated that she had been continuously in bed subsequently. Said that her "heartpains" had stopped but that during her convulsions she is unconscious. She also told me that she could not leave her bed to empty her bowels or bladder and that she was obliged to use a bedpan.

A few days after my examination she was carried into court on a stretcher and presented an interesting spectacle for judge and jury. However, for some reason, she

lost her case, the jury rendering a verdict for the defendant. She was taken home and remained in bed while her counsel made application for a new trial. This application was denied and as soon as the result was made known to the plaintiff and to plaintiff's family, she began to improve. One month later a casual visitor reported that the plaintiff was not at home and was told by her relatives that she was at work. Subsequently she was reported at work every day. She was then actually visited while at work at her typewriter, talked pleasantly, was self-possessed and evidently well.

II. M. R. H., female, aged 40. Passenger in a collision. Claimed that she became "unconscious or dazed" but that she got out of the car without assistance. She stated that both knees and her left shin were bruised; also had pain in the back. Visited a physician who advised her to go home but did not give her any treatment. She felt that she was losing power in her legs and took a carriage to her home. Here she was helped out of the carriage, carried into the house and up stairs to bed. She stated that two days later she vomited blood and that this recurred two days subsequently. Remained continuously in bed under the care of one and at times of several physicians. When examined by me five months later for her counsel, she presented a typical hysterical paraplegia with rigidity of the legs. She moved the legs a little from side to side and raised them slightly from the bed, but declared that she could not stand or walk. Both limbs were rigidly ex-

tended at the knees and ankles; because of the rigidity no tendon jerks could be elicited; there was no Babinski sign. An anæsthesia to all forms of sensation was present involving the legs, the trunk, parts of both arms and parts of the head and neck; in fact she made responses only when the scalp, the forehead, the nose, the cheeks anteriorly, the mouth and the chin were tested; sensation also was preserved over both hands and over both forearms as far as the junction of the middle and upper thirds.

Although she claimed that she was entirely without feeling in any portion of the trunk, she notwithstanding complained of pain and tenderness when the spine and back were tested. There was also marked contraction of both visual fields. At the trial, held some two years later, at which I was not called to testify, she was brought into court on a stretcher. Permanent organic injuries to the spinal cord were claimed and a large verdict secured. Some six or seven months later the physician who had originally examined the plaintiff after the accident informed me that improvement began almost immediately after the settlement and that she had made a rapid and complete recovery.

III. C. D. O., male, age 34. Passenger in a collision. Claimed to have lost consciousness, was bruised and cut. Some ten months later I examined him for his counsel. A few small and superficial scars were discovered on the right lower limb and a few on the face. There had been

no gross or physical injury. The plaintiff presented, however, an exceedingly marked hysterical ataxia—a so-called astasia-abasia; his arms and legs were thrown wildly about whenever he attempted to move. There was also a loss of pain sense, a hemianalgesia, on the right side and in addition a grotesque ataxic speech.

He was brought into court on chair and crutches. A very substantial settlement was secured and this was followed by a rapid improvement. At my urgent insistance he subsequently came several times to see me, always unaccompanied and without assistance, soon without his crutches, and though he received no treatment, he was very shortly—after some two or three months—entirely well. It is very probable also that had I left him alone altogether, his recovery would have been even more speedy.

IV. L. Q. P., male, aged 50. Fell from car. Immediately afterward became completely paralyzed in the left leg and partly paralyzed in the left arm. Subsequently used crutches though with difficulty and also began suffering from fits. The latter came on several times a day though sometimes only once in ten days or two weeks. His physician stated that he was never unconscious during a fit. He claimed to have been entirely well before the accident; this was subsequently denied by his physician who stated that he had attended him previously.

Examined three years after the accident, he was found seated in a chair. He was shaking violently with both

arms and legs and making extraordinary grimaces with his face, mouth and tongue and also giving vent to curious blowing sounds. He was entirely conscious during this performance which, I was informed, was one of his fits. He was in excellent physical condition; he was stout, his color was good and his extremities were warm. He presented a typical hysterical hemiplegia together with a hemianæsthesia. He answered my questions in between his grimaces in monosyllables and became very much worse as soon as I attempted a physical examination.

He secured a substantial settlement. Shortly afterward,—a "few months,"—he abandoned his crutches and, as one of his neighbors expressed it, "made a remarkable and quick recovery, when everybody had been led to believe that he had an incurable spinal trouble. He was in and out, back and forth, out in all kinds of weather and looked in splendid health."

V. O. A., female, aged thirty-five. Fell from car. Claimed that she became unconsious; she was taken home and put to bed. According to the statement of the physician who was called in, she was hysterical. Examined a year later, she was found in bed. Wept at sight of the physicians and moved her arms and hands about in a jerky manner. She moved her legs very little and only after persistent persuasion. When it was attempted to test her knee-jerks, the plaintiff kicked her legs out violently, screamed and complained of pain. Similar phe-

nomena followed the attempt to study the reflexes of the arms. No ankle clonus and no Babinski sign were elicited. Tested for sensation, the plaintiff claimed not to feel any impression in the lower extremities below the groins or the buttocks. She presented also typical areas of painful hyperæsthesia over the back and groins. Upon urgent insistence she sat up in bed and her attention being otherwise engaged, the back was freely handled and pressed upon without the slightest reaction on her part. Being still further urged, she finally left her bed and walked about her room with a cane; she tapped the floor in advance of her with the cane and did not use it as a support. She refused absolutely to walk or even to stand without the cane unless assisted by her mother.

A history subsequently elicited revealed that the plaintiff had been hysterical for several years before the alleged accident.

At the time of trial, the plaintiff was carried into the court-room on a stretcher. She was very pale, seemed to be much frightened and looked very badly. She secured a substantial verdict. Within a few days her neighbors made uncomplimentary remarks about her rather rapid improvement. She then disappeared from view but reappeared some three months after the settlement walking about unaccompanied, conducting herself in a normal manner and looking extremely well.

VI. D. T., female, aged 55. Fell from a car. Examined one month after the accident, the plaintiff was found

in bed. She moved her arms very little and her legs not at all. There was a typical hysterical contracture of the right leg and an anæsthesia of both legs as far as the groins. There was no involvement of the sphincters.

Some two years later she was brought into court seemingly a hopeless cripple. The case was settled without trial. Subsequently the plaintiff purchased a business, became active in every way, displayed no nervousness nor indeed revealed by her conduct that there was anything or ever had been anything the matter wtih her. She entered freely into conversation, laughed, joked and appeared to be in excellent spirits.

VII. R. L. W., male, aged 32. Thrown to the floor of car as result of collision. Taken to hospital, examined, no gross physical injuries, dismissed and went to his home. Claimed that after arriving at home, he became unconscious and remained so for seven hours. His family physician was called in and discovered a black and blue mark in the lumbar region and another discoloration on the left leg from the knee down. He was subsequently confined to his room, "up and down."

Seven weeks later was examined by me for his attorney. He was found up and around in his bed-room; walked with a cane; limped decidedly upon the left leg. Stood readily upon the right leg alone but with apparent difficulty upon the left. The grip of the right hand was normal; that of the left hand very weak; a fine intention tremor was present in both hands. Flexion of the trunk

was normal in all directions though the plaintiff stated that motion caused pain in the small of the back. The knee jerks were plus and there was a faint disappearing ankle clonus upon both sides. There was no Babinski. Superficial pressure elicited pain over the spine and over both inframammary and both inguinal regions. There was marked hyspæsthesia of the entire left side. No other symptoms.

When I was called to testify to this plaintiff's case some fifteen months after the accident, I was much surprised to find him lying on a stretcher in the court-room. I had re-examined him only a few days before at his home, upon which occasion he had been seated upon a chair and at my instance had walked about the room with a cane. In court he was pale, presented a truly wretched appearance and though there was no difference in the medical testimony presented by plaintiff and defendant as to the hysterical nature of the case and eventual recovery, a very large verdict was awarded. Subsequently the medical history was similar to the others already cited. Early improvement and recovery followed. Long before a year had expired, he took an active part in dancing and like diversions. A rest treatment, the necessity for which had been especially dwelt upon by some of the plaintiff's experts, was of course not taken.

VIII. D. Q., female, aged 53. Struck by the fender of a trolley car upon the lower third of the left leg upon its outer aspect; fell into the net of the fender. The car

was stopped and the plaintiff got out of the net unassisted. Taken to hospital. Undressed, examined and dismissed. Went home in a cab. Her family physician found two bruises upon her back and one upon the left thigh. She remained in bed and about two weeks later her physician directed her to get out of bed and around and about. She declared she could not do so, that her legs were paralyzed.

Examined by me some months after the accident, the plaintiff was found seated in a chair. Asked to walk, her husband handed her a pair of crutches which she used awkwardly and in such a manner that they could have been of little or no assistance. She rose from the chair apparently with extreme difficulty and with many protestations of pain. Finally she walked, but in doing so swung her both legs about excessively, especially the right. In addition, both legs presented a typical hysterical anæsthesia as far as the groins. The knee jerks were plus, no ankle clonus and no Babinski sign. She was brought into court on a chair and received a substantial settlement. Her attending physician subsequently informed me that he never saw the plaintiff professionally again after the trial but that shortly afterward and frequently thereafter he passed her upon the street; she was walking, always without her crutches, and to all intents and purposes entirely well.

IX. C. W., male, aged twenty-five. Thrown from seat by collision of cars. Taken to hospital. No gross physical injuries. Dismissed from hospital. Walked some

distance to car; then to his home. The family physician found all "the muscles stiff," and made the diagnosis of "injury to posterior nerves." The plaintiff went to bed where he remained for eleven weeks. Claimed that he did not get around and about before about ten months after the accident. Examined a year after the accident, he complained of sensations of tightness, numbness and aching in various parts of the body; stated that when he walks his left side gets stiff and that he drags his left leg. As the room was very cold, he was asked to step into another which was heated. He did so, walking normally without assistance and using both legs in a normal manner. He complained of tenderness and soreness in any part of the trunk or limbs which was examined or to which his attention was attracted. However he permitted handling of his back, trunk or limbs without comment if his attention was attracted to some other portion of the body. There were no sharply defined areas of tenderness and no definite anæsthesias. He claimed that he was confined to his chair.

At the trial it was alleged that he was too ill to be present in court; a substantial verdict was rendered. As soon as he received his money, he got "around and about." As a neighbor expressed it, "he got well right away after the money was paid" and shortly after was back at his work.

X. P. G. O., male, aged 31. Thrown to floor of a car in a collision. He got off the car and walked some dis-

tance to his work. Subsequently and for a period of two months he continued to work as usual. He then in the company of a friend visited an attorney. On learning that medical testimony was necessary, he visited the office of a physician. To the latter he stated that he had several bruises, but nothing was apparent save that the plaintiff complained of being nervous. He visited the physician again about a month later and not subsequently until two days before the date set for the trial; upon that occasion he merely stopped in to notify the doctor that the trial was to take place.

However, the trial was delayed for some two years. By that time he had developed glove-like anæsthesias, coarse tremors, difficulty in walking and was carried into court in a chair. In the interval he had had very little medical attendance, but had secured expert examinations in abundance. A large verdict was secured. A few months later he was seen around and about looking extremely well, carrying parcels and active in his movements. Later still he married and disappeared from observation.

XI. M. G., male, age 46. Fell on the floor of a car, striking upon his buttocks; was helped to his feet; secured a seat, remained in the car until he reached his destination, walked to his office and declares that he then became unconscious remaining so for two hours. Felt obliged to go home, took a cab, was assisted into the house and walked with assistance up-stairs to his bed-

room. Did not send for a physician until the following day. The latter then found paralysis of both legs. Subsequently the paralysis spread upward involving the arms and the entire body so that the plaintiff lay helpless in bed, could not even turn or raise his head from the pillow. He was able, however, after a time to use his arms and to feed himself, and finally to sit up for a while in a rolling chair.

Examined three years after the accident, he was found lying upon a couch, on the first floor of his home. He declared that he was unable to sit up. There was a spastic paralysis of both legs in extension. The plaintiff did not move the legs at all save slightly in abduction and adduction. Both feet and ankles were distorted by marked hysterical contractures. There were no sensory losses and no involvement of the sphincters. Painful hysterical areas were elicited over the back, sacrum and coccyx.

During the examination, the plaintiff passed into a hysterical convulsion. He did not close his eyes, assume unconsciousness nor did he seem to be in the slightest degree distressed mentally during this performance. The diagnosis of a pronounced hysteria was made. He was in excellent general nutrition.

The plaintiff was insistent in his statement that he was very helpless; his surroundings, however, justified the suspicion that he really waited upon himself, helped himself to food and attended to his personal wants. I sub-

sequently learned that one of the physicians whom he had called in to attend him had pronounced him an imposter and had refused to have anything to do with his case.

A few days after my examination he was brought into court on a rolling chair; both legs were rigidly extended, and the distorted feet conspicuously displayed. Permanent injuries were claimed. A large verdict was secured.

Within a few days after settlement, the plaintiff was seen out of doors in a wheel-chair. The foot-rest was down, the legs flexed at the knees and he sat in a perfectly normal manner. He was also seen walking about and standing unassisted and without crutch or cane. He persisted in using the wheel-chair for several months. He then changed his residence. It was observed that when he walked into the house in the new neighborhood, he moved with little or no difficulty; but when he had occasion to return to the old house and was exposed to the gaze of his old neighbors, he entered the house with slow and apparently painful effort. Later he walked and stood about the porch of his new residence without crutch, cane or other assistance. Later still he was seen to board a car, unaccompanied, well-dressed and apparently in the best of health. Upon that occasion he had with him a child whom he lifted into the car; he had, of course, neither crutch nor cane.

XII. H. S., female, aged 23. Was thrown forward and backward in a collision, striking first her chest and then

her back. She claimed that she bled from the mouth and fainted. Was removed to her home. Here she went to bed and had, so she stated, two copious hemorrhages from the stomach daily for several successive days.

She promptly engaged an attorney and eight days after the accident, I examined her. She complained of soreness and aching in the chest and back; could not stand; had anæsthesia of both legs below the knees more marked in the left; also glove-like anæsthesia of both hands and forearms; superficial tenderness over the spine most marked in the dorsal and lumbar regions. A physical examination of the chest and abdomen was negative. Pulse rapid but heart sounds normal. Trial was not reached for three years. During this time the plaintiff continued to present the symptoms of hysteria; every time the case was reached, she became worse and during the intervals somewhat better. Previous to the times set for trial, she would report at my office for re-examination. She came using a cane; she had become able to walk; her symptoms had conveniently changed from those of hysterical paraplegia to those of hysterical hemiplegia. There was a flaccid paralysis of the left arm and leg, left sided hemianæsthesia, contraction of the left visual field, hysterical deafness of the left ear. She claimed at various times that she was still vomiting blood and sometimes exhibited cloths saturated with blood; she never, however, vomited blood in my presence. She was plump and always in excellent nutrition.

Five years after the accident her case was finally settled. Subsequently I requested her to come to see me and later proffered this request in writing to her counsel. She never returned but was seen out shopping, fashionably dressed, walking briskly, looking exceedingly well and evidently in the best of health.

XIII. P. T., female, aged 36. Fell to floor of car striking her head. One month later suffered from convulsions. These were termed traumatic epilepsy by a physician. The plaintiff was also told that she would never get well until an operation had been performed. She continued having convulsions at irregular intervals and sixteen months after the accident was examined by myself.

The plaintiff stood normally, walked normally; the knee jerks were somewhat exaggerated; there were no ankle clonus and no Babinski sign. There was, however, a well-marked and typical hemi-hypæsthesia upon the left side of the trunk, limbs and face. The eye grounds were normal.

At the trial, held shortly after my examination, much was made by the physicians and the counsel for the plaintiff of the claim of traumatic epilepsy. The harrowing details of the brain operation were elaborated before the jury. A verdict was secured and the plaintiff subsequently made a prompt recovery. The physician most intimately associated with the case later reported to me that the plaintiff did not have another convulsion after

her case was settled and that no operation was ever performed.

XIV. Z. L., male, aged 30. The plaintiff claimed that he had been injured in a collision. No mention of injury was however made by him at the time. He alighted from the car, walked a distance of several blocks and then realized that he had been hurt, returned to his home and sent for a physician. Subsequently he was in and out of bed for about three months. Six months later hysterical convulsions began; during these attacks he acted as though he were hallucinatory and confused. The attacks increased in severity, the plaintiff talked of suicide and it was claimed that he had on one occasion attempted it and that he had gradually grown so much worse that he was insane practically all of the time.

Before being permitted to see the plaintiff, I was told that he was so ill that I would probably be unable to make an examination. When I finally entered the bed-room, I was confronted by an exceedingly healthy looking young man, sitting up in bed. He betrayed great nervousness but upon my addressing him in a sympathetic voice and manner, he permitted me to examine his back and limbs. The back seemed to be exceedingly sensitive but he forgot all about this when I resorted to the time worn expedient of the double touch. His movements and reflexes were entirely normal and the visceral examination was likewise negative. Before I completed the examination, however, the plaintiff proceeded to address various persons

in the room by fictitious names and to appear bewildered and confused. These symptoms, however, were clearly spurious for he continued to be perfectly oriented and responsive to the requests made of him by me during the physical examination.

At the trial he was not in court; it was alleged that he was too ill to appear. A verdict was secured. It subsequently transpired that he had been repeatedly treated by physicians for nervousness previous to the accident, that one of them indeed had pronounced him a "nervous wreck" several years before. Some months after settlement of his case, he was seen around and about, walking and riding on the street cars and apparently in ordinary health and of course without an attendant.

XV. W. R. N., female, aged 23. Was a passenger in a collision. Claimed that she had immediately become unconscious and had remained so for half a day. Subsequently she had frequent loss of consciousness and also convulsions. She soon became bed-ridden. Examined by me some two years after the accident, a typical hysterical paraplegia was discovered. She was found sitting in a chair. Could not be induced to move her lower limbs in the slightest degree; there was also an anæsthesia of both legs up to the level of the groins and buttocks. Typical hysterical tenderness was present over the back; also inframammary and inguinal regions; in addition contraction of both visual fields. She was transferred to a hospital. Here it was reported that, at times, she used

her legs in a normal manner and she was charged by a fellow patient with malingering. A very large settlement was notwithstanding secured. She then disappeared from observation and remained away for several years. It was learned that in the interval, she had spent her money freely and when it was finally gone, some five or six years later, she returned and was soon again at work not losing a single day.

XVI. M. D. U., male, aged 40. Passenger in a collision. Examined eighteen months after the accident, he is found seated in a chair. There are present frequently recurring twitchings of the right side of the face and of the left arm. The twitchings of the face are very violent and involve also the head. The mouth is drawn violently toward the right and the head is thrown violently backward while the chin is turned to the left. There is a contracture of the left arm at the elbow and also at the wrist; the position assumed is that of moderate flexion. The twitchings become more violent during the examination. The right arm is in a condition of flaccid palsy, and there is present a typical hemianæsthesia involving the entire right half of the body. He breathes loudly and frequently gives vent to gurgling and belching sounds. He does not answer questions addressed to him, but is unquestionably aware that an examination is taking place, for he stands up and walks in response to a request to do so. We are informed that he has lost control of his sphincters but an examination of his clothing and of his bed fail to

reveal any evidences of such a condition. His general physical condition is excellent.

He was not in court at the time of his trial, it being claimed that he was too ill to be present. The trial resulted in a substantial verdict in his favor. Subsequently,—how long after I have been unable to learn,—he made a complete recovery, looked the picture of perfect health, was stout and in good nutrition. It should be added that it was also learned that the plaintiff had had marked hysteria several years previous to the accident.

XVII. N. W., female, colored, aged twenty-eight. Frightened by an "explosion" on a car. Fell to the floor and lost consciousness. Was taken home and had a hysterical seizure; continued to have hysterical seizures subsequently. Was in and out of bed for three or four months; then was around and about but the hysterical seizures persisted. When examined some three years later, a few days before the trial, she was found in bed presenting numerous hysterical stigmata. Claimed to be very ill when she was called to the witness stand, had a hysterical seizure with violent screaming and was carried out of the courtroom. She secured a substantial verdict. Definite information as to whether any seizures recurred after settlement could not be secured. However, medical attendance ceased with the trial and subsequently the plaintiff was seen around and about, attending to household duties and out of doors; she was cheerful, conversed freely, looked well and was evidently in good spirits.

XVIII. H. D. V., female, aged 56. Was a passenger in a car which while standing still suffered a rear-end collision. The plaintiff claimed that her back was hurt and that her right knee was bruised. She did not become unconscious and continued in the car until she reached her destination. She then walked several blocks to her home. She had pain in her back and was nervous and depressed. She went to bed, remained there six weeks; later sat up in chair and helped herself about the room with the aid of a cane.

Examined four or five months after the accident, she presented marked weakness of both legs. She could not be induced to stand properly, but adopted a peculiar attitude, the trunk bent forward, the legs separated and partly flexed at the knees. The knee jerks were plus, the other reflexes negative. There was no involvement of sphincters. There was a marked painful hyperæsthesia of back, more marked in lumbar region; also superficial inguinal tenderness. The plaintiff volunteered the statement that she had at one time had painful tenderness under the left breast. Deafness also was claimed. She stated that she could not hear the ticking of a watch even when the latter was applied close to her ears. While the test was being made, she was asked repeatedly in a voice which was gradually lowered from that of an ordinary conversation to a tone slightly above a whisper, "Do you hear the ticking"; she always replied promptly "No, I do not hear the ticking." She complained bitterly of her

sufferings, was loud in her protestations of illness, and was very anxious that I should know all that was the matter with her, told me of all the medical examinations that she had undergone and of all the wonderful things that had been discovered in her case. At the trial I was not called as a witness. Permanent injuries to the spinal cord were claimed and a very large settlement made. Barely three months elapsed before the plaintiff showed the most remarkable improvement and shortly after disconcerted both counsel and witnesses by the indecent haste of her recovery.

XIX. N. D. C., male, aged 38. The plaintiff fell to the floor of a car due, it was claimed, to a premature start. Continued on the car until he reached his destination; then walked with assistance several blocks to his home and upstairs to his bed-room. Sent for his physician who found bruises upon the right hip and shoulder. These bruises he claimed persisted for three months (?). He further stated that he was confined to his room "in and out of bed" for eight months. The claim was made that as a result of the injury to the hip, his right leg had become shorter. Examined between two and three years after the accident, a right hysterical hemianæsthesia was discovered. Careful measurement revealed no change in the length of the limbs. He complained however of great pain whenever the right hip was moved; and his tendency was to hold it in a fixed position. He stated that one doctor had told him that his hip had been frac-

tured and that another had said that it had been dislocated. The protestations of pain persisted only while the hip was being examined. They disappeared when his attention was attracted elsewhere although the supposedly painful parts were at the same time handled and manipulated. He stood equally well upon either leg alone and betrayed no abnormality of gait. Careful examination revealed no abnormality of any of the bones or joints. The reflexes too revealed nothing unusual. The demeanor of the plaintiff throughout was that of a case of marked hysteria. Permanent injuries and incapacity for work were claimed up to the time of the trial. He secured a substantial verdict; later went back to work and when last seen some six months after settlement, declared that he was "never better in his life."

XX. O. Z., male, aged thirty. Thrown or fell from car. Examined some ten months after the accident, he was found to present superficial spinal tenderness, double inframammary and double inguinal tenderness, hypæsthesia of the lower half of left side of trunk and left leg as far down as the knee; marked rigidity of left leg. Claimed that he could not move this leg in the slightest degree. However, when I tried to raise the *right* leg from the bed, he resisted and the *left leg was firmly depressed into the bed.*

At the time of the trial he was brought into court on a stretcher and a large verdict secured. After the trial improvement began but was interrupted by a dispute

which ensued between himself and his counsel as to the proportion of the settlement he was to receive. His money being withheld, he employed a second attorney to bring suit against the first, and when last heard from was still contentious and complaining, though thoroughly able to make a living on his farm. His complete recovery appears to have been delayed by the failure of final settlement, he still believing that he had a claim against his attorney.

The following cases present in a glaring manner the truth that hysteria precedes the trauma which is claimed to cause it. The plaintiff usually makes the opening statement, in giving his testimony, that he was entirely well previous to the accident. How untrue this is the following cases illustrate.

XXI. O. W. S., male, aged 55. Claimed that he was injured while a passenger in a car which suffered a rear-end collision. Claimed that he was made unconscious, was taken home. Here he developed numerous nervous symptoms, "crawling nerves," a tender spine, deafness, fear of falling, pain in the back of the neck, etc. A claim was promptly made through an attorney. It was subsequently learned that he had had nine years before another accident, a fall due to the premature start of a car, followed by a train of nervous symptoms; nervous shock, tingling and numbness in the lower extremities, etc.; diagnosis at the time "traumatic neurasthenia." Case settled and settlement followed by improvement. Sev-

eral years later he suffered from an injury to an arm in passing through a gate-way; this accident was again followed by a train of nervous symptoms. Examined two and a half years after the last accident, he presented the symptoms of a well marked hysteria. The latter was typical in character though the number of symptoms was small and they were not pronounced. His chief symptom consisted in weeping, crying out aloud and lamenting. His hysteria was unquestionably of long duration and had in all probability antedated the first accident. He claimed to be too ill to attend court. His case was settled but when last seen, he was still very nervous. Has one child, a son, who is also a "nervous invalid."

The following case is even more striking than the last, though it also presents an instance of more than usual effrontery.

XXII. H. V., female, aged 48, entered a car, took a seat, rose to change her seat, car started, fell to the floor; helped to her feet, left car at her destination, walked home, went to bed and sent for a physician.

Examined two months later, she began with the statement that previous to the accident she had been entirely well. I however recognized her at once as a patient who had been in one of the hospitals of whose staff I was a member, off and on for many years, under treatment for profound hysteria. Further the symptoms she presented were the same as those I had repeatedly observed when she was at the hospital; there was the same coarse tremor

of the hands, the same clonic spasm of the left arm and when the legs were examined they also passed into clonic spasm just as they had at the hospital. She stood upon her feet, held the latter widely separated but refused to make any attempt to walk. I had frequently seen her at the hospital with these very symptoms and indeed far more pronounced.

The following case also is not only instructive but interesting.

XXIII. D. L. M., female, aged 40. Was a passenger in a trolley car which sustained a collision. Claimed that she became unconscious and remained so for from six to eight hours. Claimed also to have had an extensive contusion of the lower portion of the left side of the chest, left side of the lumbar region and of the back generally; also that two of her floating ribs on the left side had been broken. She was continuously in bed for a number of months and afterwards confined to her room. For a long time she was utterly unable to walk.

She was examined by me for her counsel and the crass signs of a confirmed hysteria were at once revealed; painful hyperæsthesia over the spine and back generally, hemianalgesia of the left side and contracture of the visual field of the left eye. Upon my remarking to her that I could discover no evidence of any fractured ribs, she unhesitatingly replied "Oh, I passed the fragments by the bowel." Her case was settled out of court; she improved rapidly, left the city, suffered—as she claimed

—an accident to her hand, brought suit, developed palsies with contractures, went to a doctor for electrical treatment and subsequently brought suit against him for palsies brought on by his electrical applications. This was the last I heard of her. In this case it is clear that the patient suffered from a confirmed hysteria and one which had doubtless existed all her life.

I could add to the above cases and duplicate them many times. They reveal the final truth as to hysteria and accident compensation and place it beyond all cavil. Further comment seems to be unnecessary.

CONCLUSIONS.

The consideration of hysteria in the foregoing pages justifies the conclusion, as has been already pointed out, that hysteria is innate, that it always pre-exists in the individual. Its manifestations may not be at all times apparent, but the underlying neuropathy of which it is the expression is never absent. Occasion and circumstance alone are required to bring its symptoms to the surface. The statement is sometimes carelessly made that any one may become hysterical but the facts controvert this assertion. In railway accidents the engineers, stokers, brakemen and conductors do not, as we have seen, develop hysteria and among the passengers present in an accident hysteria manifests itself in only a limited number. Not all become hysterical by any means; only those who are already the subjects of the affection.

Let us review briefly the facts as to the occasion and circumstance necessary to bring the symptoms to the surface. Three causes are variously assigned by medical writers and experts in the courts, namely, trauma, fright and the prospect of compensation. Trauma, so constantly alleged to be a cause of hysteria, never, as we have seen, of itself causes hysteria. Injuries received during sleep, during the sleep of ether or of alcoholic intoxication or during sports and exercises, never lead to hysteria. Further the hysteria in a given case bears no relation to the character or the degree of an injury and the surgeon is not living who can say after examining a bruise, a dislocation or a broken bone, that the patient will also suffer from hysteria. If it is claimed that an injury must in addition be accompanied by fright in order that hysteria may supervene, it must be remembered that fright unaccompanied by any injury whatever is a cause of hysteria; indeed that fright is of itself a common, a sufficient and a frequent cause, is a matter of lay experience; and, as already pointed out, in hysterical litigants, the accident alleged may have been, and frequently is, wholly imaginary and non-existent. Try as we may, no rule can be assigned to trauma and the expression "traumatic hysteria" so frequently and so glibly used by medical witnesses in the courts, describes a condition which does not exist.

The hysteria observed in litigants bears, let us repeat, no relation to trauma. Neither does it bear any relation

to fright. We should bear in mind that the hysteria evoked by fright alone,—i. e. a hysteria into which compensation does not enter,—presents a very different clinical history from the hysteria of litigation. Fright hysteria is of immediate onset; its symptoms supervene at once at the time the fright is experienced, and as a rule it is of short duration and usually rapidly subsides. When it does not rapidly subside, special causes as we shall see, are at work to bring about its prolongation. Common among these is the prospect of compensation.

Very frequently the history of the hysteria of litigation is that of a slow and gradual development. The plaintiff may have received, as we have seen, some physical injuries; usually the latter are slight and inconsequential and at times so trivial as to be practically non-existent. Quite commonly the supposedly injured person is attended by bystanders, conveyed to a near-by drugstore, perhaps sent to a hospital or taken to his home. In either case he comes under the care of physicians; soon a lawyer is sent for, medical experts are called in, elaborate examinations are made, many notes are taken, strange scientific terms are used in his hearing; the conviction that he has been seriously hurt grows steadily in strength and with this his proportionate expectations of the amount of his compensation.

At times, the accident itself is wholly imaginary, as in Case I. Again, at times it does not occur to the plaintiff until hours, days, weeks or even months after an accident,

that he has been hurt. Of this Case XI is an extreme example. Here the plaintiff remained at work, it will be remembered, for two months after which he consulted an attorney and only subsequently and at the instance of the attorney visited a physician. The physician was not consulted as to treatment but merely asked to testify in court.

A consideration of the facts in regard to the hysteria of litigants can leave no doubt as to the absolute dependence of the symptoms upon the factor of litigation. Every hospital in our large cities treats numerous accident cases daily; the larger number of patients have their injuries dressed, are dismissed without further ado, and subsequently attend the out-patient department until they are well. A few only are admitted to the hospital wards. Certain it is that few or none present hysteria. If fright hysteria has been present, it has usually subsided by the time the hospital is reached. If hysteria subsequently develops, it is as a direct result of the prospect of compensation. In short, in the hysteria presented by plaintiffs, the phenomena observed are due not to fright nor to trauma, but to litigation and the proper designation of the condition is "litigation hysteria." That the latter resists every form of treatment has already been pointed out. All medical attendance ceases, however, with the settlement. The symptoms disappear, the plaintiff forgetting all about them; but if settlement be delayed, the plaintiff neither gets well nor improves and this situation

may continue indefinitely, sometimes for years; indeed, as long as any hope of settlement persists in the plaintiff's mind. The various stigmata, the anæsthesia, the palsies, the contractures or other symptoms subside with the disappearance of the claim and the individual returns to his former state of health. His hysteria becomes quiescent. He is still, of course, the victim of his neuropathy just as he was before the accident. Perhaps stigmata are to be called forth again some time in the future by some emotional crisis or developed by another claim for compensation. Quite commonly too the individual returns to his former avocation, resumes his accustomed place in the social fabric; the sooner if his claim has proven unsuccessful or when his money has been spent.

A word remains to be said upon the extraordinary phenomena sometimes presented by hysterical litigants in the courts; e. g. gross tremors; bizarre positions of head, trunk or limbs; gross and anomalous distortions, pseudo-deformities and contractures; gross clonic movements; convulsions; palsies; utter helplessness; blindness, deafness, loss of taste and smell; the appearance of chronic and hopeless invalidism; of being doomed to a life of suffering in the bed, the couch, the chair. And yet all of these phenomena are, as we have seen, artefacts. They are due in part to the auto-suggestion of the plaintiff, in part to suggestions furnished by friends, relatives and lawyers, but in greatest part they are due to suggestions presented by the many, the frequently re-

peated, and often endless medical examinations. It is true that the role which physicians play in the development of symptoms is usually inadvertent and unintentional, but it is none the less pernicious. A physician, who is not practically familiar with hysteria, may in his mistaken zeal add daily to the number of symptoms which the plaintiff presents, until indeed the appearance of gross organic disease may be simulated. The fact is that an ignorant practitioner or—and this is still more true—a skilled but unprincipled one, can develop any symptoms in a given case that the legal exigency of a case requires. In hysteria everything is furnished that is wanted provided only that the patient be informed. For instance, a symptom absent at one examination but discussed in the patient's presence, is promptly furnished at the next; thus, in a case of hysterical paraplegia in which a transverse lesion of the spinal cord was claimed, the examiner without making any comment, noted that the sphincters of the bowel and bladder were intact. The person of the plaintiff was clean, there was no odor of fecal matter or urine, nor was there any soiling of the night-dress or of the bedding. The examiner so testified a few days subsequently in court. The plaintiff's medical attendant at once hastened back to his patient, reappeared in court and testified in rebuttal that he had interrogated (!) his patient and that she had then and there wet herself in his presence! Upon another occasion, a plaintiff who presented hysterical convulsions,

but in whom epilepsy was claimed, on learning from the conversation of the physicians that in epilepsy there is frequently a passage of urine during the epileptic attack, soon had an attack in the presence of both her lawyer and doctors in which she urinated upon the floor. That blindness, deafness, grave symptoms of all kinds, may arise in this way is a matter of common experience. When we add to this the fact that the average plaintiff grossly exaggerates and not infrequently knowingly and willingly malingers, we can readily understand the surprising conditions every now and then presenting themselves in court or are claimed at time of trial. Clinical pictures are constantly presented which are not met with in the hospitals or clinics; indeed, the medically impossible things are met with only in the courts. Plaintiffs, too, are frequently exceedingly cunning in the claims which they make; particularly is this the case with out and out malingerers. Thus, it is often difficult to determine the truth or falsity of the claim that the plaintiff suffers from pain in a certain part; e. g. the back or the head. Pain may exist without physical signs. That this is well known to plaintiffs is shown by an incident recorded by Sir John Collie.[35] "A working-man told a friend of mine that, prior to his visit for the purpose of examination, he got the following sage advice: " 'When yer get 'urt,' 'e says, 'say it's yer back; the doctors can't never get around yer back.' "

Another fact which it is important to consider is that

the plaintiff usually ascribes every symptom that he presents to the accident even when the said symptoms clearly antedated the accident and are obviously the result of other causes. The amblyopia of chronic alcoholism, of the chronic abuse of tobacco, the migraine of long duration, the symptoms due to the arterial and cardiac changes of advancing years, and in women the symptoms of the menopause are frequently and unhesitatingly added to the complaints which are made the basis of the claim. Almost invariably, as has been pointed out, the statement is made by the plaintiff that previous to the accident he was entirely well, even when he bears upon his person the earmarks of the falsity of his assertion. Too much care cannot be exercised by physicians in making their examinations and in weighing the results of injuries, but there should be no trouble in eliciting the truth. Not infrequently a history of the previous condition of the plaintiff can be secured from former medical attendants and from hospitals; though such history is rarely, and should not be, necessary. It is especially in attributing the symptoms of the menopause to the accident that great effrontery is frequently exhibited, and, in such cases, much difficulty is often met with in securing a truthful history of the menstrual life of the plaintiff.

Setting aside the exaggerations, malingerings and palpably fraudulent claims, what is the attitude which we are logically constrained to adopt toward litigation hysteria? Trauma, as we have seen, can neither produce or evoke

the symptoms of hysteria and if we take refuge in the theory that fright has been the cause, we find as has already been pointed out that the facts of fright hysteria are irreconcilable with those of litigation hysteria. Clearly if the hysteria observed in litigants is provoked not by trauma, not by fright, it must be the result of the mere psychology of compensation, namely the recognition by the plaintiff and by those about the plaintiff that the success of his claim for compensation depends upon the existence and persistence of symptoms. How such symptoms are produced by suggestion and how they are even wilfully produced, has been pointed out in the preceding pages. Surely neither the previously existing hysterical organization of such plaintiffs nor the psychology of compensation can by any process of logic be construed as a trauma and to deny compensation would seem to be the only way in which the question can be solved. If it be not possible to recover for litigation hysteria, litigation hysteria will have no existence. To deny compensation has already been advocated in Germany;[36] and in France, one of the courts, in a given case, declared that the plaintiff was suffering not from the accident alleged but from an erroneous opinion which he had formed as to the rights to which he was entitled, and ruled that he could not recover.[37] Again according to Billström the insurance societies of Sweden do not regard traumatic neuroses as entitling to an indemnity.[38]

GLOSSARY OF TERMS USED IN THE TEXT.

Achillis-jerk. The person to be examined having been placed in a kneeling position upon a chair or bed, with the feet slightly projecting, the tendon of the heel (tendo-Achillis) is struck a light blow or tap with some blunt object. The calf muscles, gastrocnemius and soleus, respond by a sudden contraction.

Æsthesiometer. An instrument for studying tactile sensibility.

Anæsthesia. Want of feeling; loss of sensation.

Ankle Clonus. If the foot be suddenly flexed upon the leg by the examiner, the muscles of the calf, the gastrocnemius and soleus, respond by a series of contractions, causing the foot to move rapidly to and fro.

Ankle Jerk. See Achillis-jerk.

Anorexia. Absence or diminution of appetite.

Anorexia Nervosa. Hysterical loss of appetite.

Anuria. Marked diminution or absence of urine. Suppression of urine.

Aphasia. Loss in greater or lesser degree of the power to comprehend language, spoken or written, or to express ideas by language.

Aphonia. Loss of voice.

Arc de cercle. Term used to describe a position occasionally assumed by persons in hysterical convulsions in which the body rests upon the head and heels, the trunk being thus elevated from the bed.

Astasia Abasia. Hysterical ataxia; incoördination in walking and standing. Term now very rarely used.

Ataxia. Incoördination or irregularity of muscular action.

Autosuggestion. Suggestion of which the person is himself the author.

Babinski Sign. When in, certain organic nervous diseases, the sole of the foot, especially its outer edge, be gently irritated, as for instance by stroking it with a toothpick or the thumb

nail, the toes, more especially the great toe, become extended. Under normal conditions there is either no response at all or the toes become flexed. The reaction may be simulated in a trained hysteric.

Bell's Palsy. A paralysis of one side of the face in which the muscles of the forehead, the muscle which closes the eye, as well as the muscles of the lower half of the face are involved.

In the palsy of the face met with in persons who have suffered from strokes, i. e. from hemiplegias, only the lower half of the face is involved.

No form of facial palsy is ever met with in hysteria.

Binaural Stethoscope. A stethoscope furnished with two rubber tubes and ear pieces. It may be used in the manner described in the text for the detection of hysterical deafness.

Catalepsy. A phase of hysteria or of hypnosis in which there is more or less fixation of posture or rigidity of position.

Clavus Hystericus. A superficial area of hysterical tenderness usually so small as to be covered by the finger tip situated on some portion of the scalp. Term no longer much used.

Clonus. Involuntary rapidly recurring muscular contractions.

Clonic. Term applied to muscles exhibiting clonus.

Coccyx. The lower termination of the spinal column; composed of four exceedingly small rudimentary vertebræ.

Coma. Sleep abnormally profound and prolonged, such as is met with in uræmia and other toxic states.

Concussin of the Spine. Term applied by the earlier writers to symptoms now known to be purely hysterical in character. True concussion of the spine consists in such a cessation of function as may follow a local injury, e. g. a bullet wound of the vertebræ, or a blow upon the vertebræ with the blunt head of an ax. As a matter of actual experience pure concussion of the spine without hemorrhage into the membranes or cord substances does not occur.

Confusion, Is a mental state which is closely related to delirium and in its more active and pronounced forms approximates the latter. It may, however, be so slight that only

a state of mild confusion may be present, such as slightly dazed state of mind. There is always present some degree of mental obtusion in consequence of which the person may make mistakes as to various objects, his surroundings, and the persons about him. Hallucinations, if present, are markedly so only in the more active forms. Unsystematized, i. e. logically unrelated delusions are present in almost all cases, markedly so in those in which the confusion is so active as to approximate delirium.

Delusion. A false belief concerning which the person holding it is unable to accept evidence, i. e. such evidence as is accepted by normal persons.

Dermographia. Skin writing; a condition in which a stroke made upon the surface of the body or a limb, with the finger or some blunt instrument, is followed by a streak presenting more or less pallor, the pallor being rapidly succeeded by a blush. This symptom is commonly met with in persons who have hysteria or who suffer from other forms of neuropathy. It is also occasionally observed in individuals who are otherwise normal.

Diplegia. A term used to indicate double or bilateral hemiplegia.

Ecchymosis. Term applied to an extravasation of blood into the subcutaneous tissues. The color is at first dark blue or purple and later may become brownish, greenish and finally yellowish.

Ecstasy. A hysterical state in which the patient acts as though she were in a trance and experiencing extreme happiness; at times she acts as though she were hearing strange sounds, voices, or beholding wonderful visions.

Edema. Swelling due to effusion of serous fluid into the subcutaneous or connective tissue of a limb or other part.

Epilepsy. A nervous affection characterized by irregularly recurring attacks of loss of consciousness with convulsive seizures. The latter may, as in essential epilepsy, be general in character and affect all parts of the body. The convulsion may be pronounced, exceedingly slight or absent.

Again the convulsive movements may be limited to one limb, as in the instance of a lesion involving a portion of the motor cortex of the brain. In such case there is present what is known as a focal or Jacksonian epilepsy.

Eye Ground. The fundus of the eye; view of the optic nerve and retina obtained by looking through the pupil of the eye with an ophthalmoscope.

Flaccid. Flabby; lax; relaxed.

Function. The action of an organ or structure.

Functional. Pertaining to the function or action of an organ. A functional disease is one without structural or organic change.

Gastralgia. Pain in the stomach; neuralgia of the stomach.

Gray Matter of the Brain. By this term is usually meant the cortex or the gray matter of the brain surface.

Gray Matter of the Cord. By this term is meant the gray matter of the spinal marrow, which is central, and on transverse section has the general appearance of a letter "H." In the anterior branches of the "H" are nerve cells, destruction of which leads to paralysis of muscles attended by wasting, loss of reflexes and the reaction of degeneration.

Gustatory. Pertaining to the sense of taste.

Hallucination. A sensation without an object; a sensation which arises spontaneously in the mind without there being any object in the external world to excite that sensation.

Hemianæsthesia. Loss of sensation over one-half of the body, i. e. over the face, head, neck, arm, trunk and a leg of one side.

Hemianalgesia. Loss of the pain sense of one-half of the body.

Hemiplegia. Paralysis of one side of the body.

Hypæsthesia. Diminution or lessening of sensation.

Hyperæsthesia. Exaggerated cutaneous sensibility or irritability.

Hypnosis. A phenomenon of hysteria artificially induced in which sleep is simulated.

Hypnotism. The method by means of which the state of hypnosis is brought about; also a term applied to the general subject of hypnosis.

Hysteria. An innate nervous malady or neuropathy in which various symptoms, mental in character, simulating physical or other disease, manifest themselves from time to time.

Hysterical Joint. A joint which the patient holds in a more or less fixed position as though it were painful. Examination fails to disclose disease of the joint or pain in the joint itself, but merely hysterical tenderness of the skin covering the joint. (See text.)

Illusion. A perception which is misinterpreted. In such instance the person perceives an object, for instance a chair but mistakes it for some other object, for example an animal, or he hears the ticking of a clock and mistakes the sounds for articulate sounds, words or sentences.

Incontinence. Loss of control over the bladder or bowels. Involuntary passage of urine or of feces.

Incoördination. Loss of the power to properly combine or make follow in their normal order voluntary movements; irregularity of character and sequence of voluntary movements. Ataxia.

Inframammary Tenderness. An area below the breast claimed by the patient to be painful or tender; commonly evoked in the course of medical examination when suggestion is not avoided.

Inguinal Tenderness. An area in the groin claimed by the patient to be painful or tender; commonly evoked in the course of medical examination when suggestion is not avoided.

Insanity. A diseased state in which there is a more or less persistent departure from the normal manner of thinking, acting and feeling.

Intention Tremor. Tremor upon voluntary movement.

Knee Jerk. Knee reflex; patellar tendon reflex. The person to be examined is seated upon the edge of a table or bed, or upon a chair with his knees crossed; the tendon below the knee is then struck a moderate blow. The great muscle on the anterior aspect of the thigh, the quadriceps extensor, responds by a contraction and the leg and foot are thrown forward.

Lateral Columns of the Cord. These columns consist of nerve fibres which arise in the so-called motor area of the brain and, descending, occupy lateral positions in either side of the cord and communicate indirectly with the anterior horns of the gray matter of the cord. These columns when diseased give rise to paralysis of the parts below, the paralysis being spastic in type.

Meatus. A passage way.

Meningitis. Inflammation of membrane.

Meningomyelitis. Inflammation of the membranes and substance of the cord.

Micturition. The act of passing urine.

Monoplegia. Paralysis of one limb as for example of an arm or of a leg.

Mutism. Speechlessness.

Neuropathy. A diseased nervous state; many neuropathies are inherent or innate.

Neuro-psychosis. A term indicating both nervous and mental disease. No longer much used.

Neurosis. A term indicating vaguely some general functional affection of the nervous system.

Neurotic. A term applied to patients in whom nervous or mental symptoms are easily evoked; persons whose nervous resistance is low.

Oedema. Same as edema.

Opisthotonos. A condition in which the back and trunk are arched through spasm of the great extensor muscles of the back. The arching of the trunk and back is somewhat less marked than in the arc de cercle.

Organic. Term applied to conditions or changes which are structural.

Ovarian Tenderness. A small area in the groin claimed by the patient to be painful or tender, evoked in the course of the medical examination when suggestion has not been avoided.

Palsy. Paralysis.

Paræsthesia. An abnormal sensation described by the patient as tingling, pins and needles sensation, numb feeling, etc.

Paralysis. Marked or complete loss of power.

Paraplegia. Paralysis of both legs. Sometimes, though infrequently, used to indicate paralysis of corresponding halves of the body, as both arms or both sides of the face.

Patella. Knee pan; knee cap.

Patellar reflex. Knee reflex; patellar tendon reflex. See knee jerk.

Patellar tendon. Tendon between the knee cap and the upper portion of the shin bone. It is the tendon of the great mass of muscle on the front of the thigh, the quadriceps extensor. It is this tendon which is tapped in eliciting the knee jerk.

Perimeter. Instrument for measuring the extent of or plotting, the visual field.

Phantom Tumor. A swelling observed most frequently in the abdomen, though also elsewhere, which simulates a tumor. It is either due to accumulation of gas, an irregular abdominal distention or to localized muscular spasm.

Polyuria. Marked increase in the output of urine.

Psychic. Mental; pertaining to the mind.

Psychosis. A mental disease; commonly applied to functional mental diseases.

Psycho-neurosis. See neuropsychosis.

Railway Spine. A term formerly applied by English surgeons to supposed injuries to the spine and its contents. Its symptoms are now known to be those of hysteria.

Reaction to Degeneration. This term is used to indicate that a paralyzed muscle is undergoing a degenerative change as revealed by an altered response to electrical stimulation. The response is radically changed so as to be in its typical phase practically the reverse of the normal; e. g. the positive closure contraction is greater than the negative closure contraction. It is never met with in hysteria.

Rectus Abdominis. Straight muscle of the abdomen.

Reflex. A term used to indicate a physical reaction on the part of the organism to an external stimulus; as for instance, the contraction of the pupil resulting from the impact of light upon the retina, or the contraction of a muscle resulting from a blow upon its tendon.

Sacrum. A large, somewhat flattened curved triangular bone, placed posteriorly between the hip bones, together with which it forms the pelvis. Morphologically it is a part of the spinal column and represents the bodies of five vertebræ which in the adult have coalesced.

Sclerosis. The term applied to the hardening of a structure due to an increase or overgrowth of its connective tissue elements.

Somnambulism. Sleep walking; a condition simulating sleep now and then observed in hysteria and hypnosis.

Spasm. Convulsive muscular contraction.

Spastic. Pertaining to spasm. Applied especially to muscles.

Sphincter. A muscle surrounding and closing an orifice, e. g. sphincter of rectum, sphincter of bladder.

Spinal Concussion. See concussion of spine.

Spinal irritation. A term employed by older writers to indicate symptoms now known to be those of hysteria.

Stethoscope. Instrument for studying the condition of the heart, lungs and other structures by sound.

Stigma, Stigmata. Terms used to indicate the various sensory phenomena of hysteria.

Suggestion. Suggestion as observed in hysteria and hypnosis consists of an idea conveyed directly or indirectly (as by implication, intimation or hint) as a result of which the person accepts sensations and beliefs as real which have no reality or basis in fact.

Tachycardia. Abnormal rapidity of heart action.

Tactile. Pertaining to the sense of touch.

Tendon Reflex. Term applied to the reaction which follows a blow upon the tendon of a muscle; e. g. knee jerk.

Trauma. A wound or other physical injury.

Tremor. A trembling or vibratory to and fro agitation.

Trophic. Pertaining to the nourishment or nutrition of a part. Trophic functions are dependent upon the integrity of trophic centers and nerves.

Ulnar Nerve. A nerve between the tip of the elbow and the inner condyle popularly known as the "crazy bone."

Vaginismus. A symptom of hysteria in which the vagina and vulva are claimed to be tender and painful.

Vasomotor Nerves. Nerves supplying the muscles surrounding the blood vessels and which regulate the calibre of the latter.

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